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The DOD Health Care Benefit: How Does it Compare to FEHBP and Other Plans?

Robert A. Levy • Richard D. Miller • Pamela S. Brannman

Center for Naval Analyses
4401 Ford Avenue • Alexandria, Virginia 22302-1498

Approved for distribution:

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Laurie J. May

Laurie J. May, Director
Medical Team
Resource Analysis Division

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Robert A. Levy, Richard D. Miller, Pamela Shayne Brannman

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(U) CNA was tasked by the Under Secretary of Defense for Personnel and Readiness to examine the DOD health care benefit. The basic idea is to examine what exactly the benefit provides and compare it to what other employers provide-especially the federal government through its health care plan and private employers through their plans. Our approach was to compare the benefits offered under the Defense Health Plan (DHP) to the Federal Employees Health Benefits Program (FEHBP) both from the point of view of the employer, who cares what it will cost and how attractive it will be relative to what other employers provide, and to the employee, who then places a "value" on the benefits provided. The cost of the program to DOD is examined with some simple comparisons of total cost and cost per user. The main focus, however, was to compare not only the health care benefit provided to active duty personnel, but all of the benefits provided with what the federal government and private employers provide to their workers. It's not just the absolute level of one specific benefit that matters, but how the total compensation that includes all benefits compare with what's offered elsewhere.

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Contents

Introduction and summary

The Department of Defense (DOD) employs more than 1.5 million active duty personnel. Like any employer, it must provide these personnel with compensation, made up of an hourly or annual wage and a number of benefits—including vacation time, disability, retirement, and health care. It provides the health care benefit not only to those on active duty, but to their family members as well as those who qualify as retirees.

Although the health care benefit provided to active duty personnel, their family members, and retirees and their family members is comprehensive, it is also fair to say that the benefit is complex, even more so than that offered by other employers. Who qualifies for what benefit depends on the beneficiaries' age, location, and perhaps even paygrade. The age of the beneficiary is important because many retirees lose eligibility for certain benefits when they reach 65 years of age. Location is important because the benefit is more comprehensive when the beneficiary lives close to a military treatment facility (MTF). Paygrade matters, at least for active duty, because higher ranking officers probably have better access to care.

CNA was tasked by the Under Secretary of Defense for Personnel and Readiness to examine the DOD health care benefit. The basic idea is to examine what exactly the benefit provides and compare it to what other employers provide—especially the federal government through its health care plan and private employers through their plans.

General approach

Our approach was to compare the benefits offered under the Defense Health Plan (DHP) to the Federal Employee Health Benefits Program (FEHBP) both from the point of view of the employer, who cares what it will cost and how attractive it will be relative to what

other employers provide, and to the employee, who then places a "value" on the benefits provided.

We examined the cost of the program to DOD first with some simple comparisons of total cost and cost per user. Our main focus, however, was to compare not only the health care benefit provided to active duty personnel, but all of the benefits provided to them with what the federal government and private employers provide to their workers. It's not just the absolute level of one specific benefit that matters, but how the total compensation that includes all benefits compares with what's offered elsewhere.

In terms of the value that the beneficiary receives from the DOD health care plan, we examined a number of factors:[1]

- The plan's coverage in terms of the health care services it provides: how well it covers outpatient services, inpatient services, pharmacy services, etc.
- The plan's expected out-of-pocket (OOP) costs that must be paid by the beneficiary, including any premium, deductibles, and copays
- The plan's worth in terms of the satisfaction perceived by the beneficiary. Measures include satisfaction with its quality, access to care, and convenience. We compared the beneficiaries' satisfaction with the various programs offered under the DHP (Prime, space-available care, TRICARE Standard/Extra) with the corresponding programs offered to federal workers and retirees under FEHBP.

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1. The sections on the beneficiaries' out-of-pocket costs and the valuation of all benefits were done in conjunction with the Hay Group, a benefits consulting firm that served as a subcontractor on this study. We wish to thank Michael W. Gaffney and Edwin C. Hustead of the Hay Group for their assistance on this study.

Findings

Comparison of benefits

We examined the health care benefits in 1999 provided to DOD beneficiaries as well as those benefits provided under FEHBP. We compared TRICARE Standard/Extra with managed fee-for-service (FFS) plans and TRICARE Prime with health maintenance organizations (HMOs).

We found that the coverage provided by the TRICARE plans is comparable to that provided by FEHBP plans. The biggest advantage of the TRICARE plans was their low cost of enrollment. DOD beneficiaries do not need to pay any premiums in order to use Standard/Extra. In CY 1999, federal civilian employees paid an average of $817 for single coverage and $1,700 for family coverage to enroll in a comparable plan. Prime is free to active duty dependents, and retirees and their dependents have to pay $230 for single coverage and $460 for family coverage. FEHBP enrollees pay on average $541 for single coverage and $1,490 for family coverage. In 2000, the difference would be even greater. FEHBP premium costs have increased by almost 10 percent, but the DHP has not changed its enrollment fee structure.

Nonetheless, the TRICARE benefit could be improved. First, coverage for inpatient care for retirees and their dependents under Standard/Extra compares poorly with the coverage available under FEHBP managed-FFS plans. Under most of the FEHBP plans, individuals pay little or nothing for hospital charges. Second, the out-of-pocket maximum for retirees and their dependents under Standard/Extra of $7,500 is about twice as high as the highest cap under FEHBP managed FFS plans.

When we compared out-of-pocket costs across the plans, we obtained very similar results. We used claims data from the private sector to calculate what the beneficiaries would have to pay under each of the following plans: TRICARE Standard/Extra, TRICARE Prime, a blended FEHBP managed-FFS plan, and a blended private HMO plan meant to represent the FEHBP HMO plans.

We found that, at most, about 6 to 7 percent of DOD retirees and their dependents would have lower OOP costs under an FEHBP managed-FFS plan than they do under TRICARE Standard/Extra. Similarly, only 2 percent of DOD retirees and their dependents would have lower OOP costs under an FEHBP HMO plan than they do under TRICARE Prime. For active duty dependents, they almost always (more than 99 percent) would do better under TRICARE.

In table 1, we compare the average out-of-pocket plus premium expenses for active duty personnel ranked E-5 and above under both TRICARE Standard/Extra and Prime with what they would be under FEHBP plans. We find that total out-of-pocket and premium costs were just $355 per annum for Standard/Extra and $167 per annum for Prime. The costs were much higher on average for the FEHBP plans: $1,203 per annum for the managed-FFS plans and $707 per annum for the HMO plans, mainly because of the premium differences. Still, the OOP expenses for the cost of care (i.e., excluding the premium) were comparable across the TRICARE and FEHBP plans.

Table 1. Comparing beneficiaries' OOP plus premium costs under TRICARE and FEHBP plans

	Cost (dollars)			
	TRICARE Standard/Extra	FEHBP managed-FFS	TRICARE Prime	FEHBP HMO
Premium	0	817	0	541
Cost of care	355	386	167	166
Total	355	1,203	167	707

Valuing health care and other benefits

We also calculated the value of the benefits (i.e., the value based on imputed rather than actual costs) provided by DOD in its role as the employer to AD personnel. Health care is an important benefit, but it isn't the only one. Workers evaluate the entire package of benefits when deciding where to work. Although it was beyond the scope of our study to determine if military personnel should receive more or less than those in the federal workforce or on private sector payrolls, we feel it's important to understand how the health care benefit and

the total benefit offered by DOD compare with that offered by other employers.

We calculated the value of the health care benefit for someone currently on active duty and a separate valuation for the benefit when this person retires. The benefits take into account the likelihood of reaching retirement as well as having dependents who would need to be covered by the plan. In this analysis, we used the most recent pay table, July 2000, in the calculations. We find that the current health benefit is valued at a little more than $5,700 for military personnel, almost $3,400 for a federal civilian worker, and about $3,800 for a private sector worker (based on a sample drawn from 50 private sector firms). On the other hand, the retiree benefit for military personnel has a much lower value when compared to the other employees. The value for military personnel is only $379 as opposed to $811 for the federal civilian and $661 for the private sector worker.

Based on these dollar values, table 2 presents them in terms of the percentage difference from the values provided to federal civilian and private sector employees. Despite the lower valuation of the retiree health benefit, due mainly to the loss of several health care benefits for military retirees at age 65, the value for military personnel is still about 47 percent higher than the comparable (in terms of pay) federal civilian worker and about 37 percent higher than the comparable private sector worker.

Table 2. Percentage difference in value for health care benefit

Comparison group	Employee health care	Retiree health care	Health care (total)
Federal civilian	71	-53	47
Private sector	51	-43	37

How does the valuation over all benefits compare? It's important to determine whether the health care benefit has to "make up" for lower benefit values elsewhere. This does not appear to be the case, however. For the specific paygrades that we examined, we still find higher values for military personnel. As examples, an E-8's benefits value for all benefits is about 33 percent higher than a comparably paid federal

civilian employee and 42 percent higher than a comparably paid private sector worker. Similar results hold for officers. For an O-3, the total value of all benefits is about 28 percent higher than the equivalent federal civilian and 38 percent higher than the private sector worker. For an O-10, the percentages are 23 and 5, respectively.

Comparing satisfaction between DHP and FEHBP beneficiaries

Thus far, we have focused on the coverage and cost that DOD beneficiaries derive from their health care plans. The costs that a person must pay for his or her own care are important, but the "utility" that someone derives from participating in a plan depends on such factors as the perceived quality or degree of choices available to its beneficiaries.

To complete our examination of the DOD health care benefit, we wanted to compare the satisfaction that DOD beneficiaries derive from their plans, such as Prime or Standard/Extra, with FEHBP beneficiaries in their plans, such as HMO or managed FFS. To perform this kind of an analysis, we obtained the 1997 surveys of both DOD and FEHBP beneficiaries so that, for similar kinds of questions, we could quantify and compare the relative satisfaction with their respective plans.

We corrected for demographic differences, such as age, education, and self-reported health status. Younger, sicker people are usually much less satisfied than older, healthier people, so correcting for these influences is important.

We were able to make several different comparisons, depending on how we defined the subpopulations to compare. As examples, we compared:

- DOD beneficiaries who were in "HMO-like" plans with FEHBP members in HMOs. For DOD, we created measures of satisfaction for the AD and Prime beneficiaries.

- DOD beneficaries who use only civilian sources for care with FEHBP enrollees in managed-FFS plans
- "Current" DOD users (i.e., AD and their dependents) and current federal civilians as well as retired DOD and FEHBP beneficiaries
- CHAMPUS filers with FEHBP members in both HMO and managed FFS plans.

Table 3 summarizes some of the results for the first set of comparisons. Note that Prime members have been further broken down into those beneficaries who usually go the MTF for care and those who usually go to civilian sources, including network providers, for care.

Table 3. Percentage of beneficiaries satisfied, by plan—Prime defined by source of care

Summary measure	AD	Prime-military users	Prime-civilian users	FEHBP HMOs
Overall satisfaction	77	84	89	88
Recommend to family/friends	65	78	88	86
Overall quality	74	80	85	85
Overall access to care	65	67	78	86

The results show several important implications. First, the AD are much less satisfied with the various aspects of their care, as summarized by these four measures, than are those in FEHBP HMOs. They are particularly less satisfied with their access to care. Prime members are much more satisfied. However, there does seem to be a difference in satisfaction depending on where they go for care. Those Prime members who rely on civilian sources for care were at least as satisfied as FEHBP planholders for three of the measures—overall satisfaction, overall quality, and recommend the plan to their family or friends. The one area in which they were significantly less satisfied was access to care.

Prime members who usually go to military facilities were significantly less satisfied than FEHBP HMO planholders, but the differences were not as much as for AD. We found their overall satisfaction to be about 4 percentage points lower and, in terms of overall quality, they were about 5 percentage points less satisifed with their plan. Again, access to care is the one measure with the greatest difference.

Summary of findings

We find that the DOD health care benefit provides the beneficiary with generally rich coverage at relatively low cost. With exceptions for retirees under 65, there is no premium. Their OOP costs, excluding the premium, are comparable to what other members of such plans as FEHBP and those offered in the private sector have to pay.

Yet, we find that many DOD beneficiaries, particularly those who rely on military facilities for care, are less satisfied than those in similar plans under FEHBP. The AD are much less satisfied when compared to FEHBP HMO planholders, but even those in Prime who go to military facilities are less satisfied. Their satisfaction of the overall quality is lower, but only by a few percentage points. Clearly, what we've found is that their dissatisfaction is mainly caused by lower access to care, including specialists and hospital care, and less lattitude in being able choose their own provider.

This dissatisfaction may reflect the fact that one way to keep costs down to some extent is to reduce access and choice of providers. But, future analysis may want to focus on how to provide more choices and options to the beneficiaries without significantly raising costs.

Comparing the plans

In our analysis, we examined four different aspects of the health care benefit. In each case, we compared the benefit offered to military personnel, their family members, and retirees to that offered by the federal government to its employees, or by private sector employers to their employees. Specifically, the four areas under study were:

- A simple side-by-side comparison of benefits under the DHP and FEHBP. Where possible, we also discuss the benefit design of plans offered by private employers.
- The projected OOP costs that would be faced by individuals under each type of plan.
- A comparison of all benefits—health care and others, such as retirement, vacation, sick leave, education—that are paid
  - — By DOD to its active duty military personnel
  - — By the federal government to its civil service workers
  - — By a group of "comparable" medium to large firms in the private sector to its workers.
- A comparison of the satisfaction reported by beneficiaries within the DOD system with that reported by civil service employees and retirees who are covered by FEHBP.

In this section, we discuss the first two bullets listed above. Later sections will describe our work on total compensation and beneficiary satisfaction. We begin with an overview of FEHBP, focusing on its FFS and HMO plans. Then we compare these plans with the corresponding DOD plans. Specifically, we compare TRICARE Standard/Extra with the FEHBP managed-FFS options and TRICARE Prime with FEHBP HMO plans. Although FEHBP consists of many alternative plans offered by private insurers to federal workers and retirees, the

specific plan design may differ from that offered by other large private employers. We present some plans from large employers as well.

An overview of FEHBP

The basics

The Federal Employees Health Benefit Program, which is administered by the Office of Personnel Management (OPM), resulted from the enactment of Public Law 86-382 on September 28, 1959. Implementation of the program began in July 1960. Before 1960, federal employees did not have access to health insurance through their place of employment. The health insurance industry had been urging the federal government to take such a step for several years; when it finally did so, insurance companies set up various types of national contracts. The number of insurance carriers offering plans under FEHBP has grown to well over 300. A handful of plans are managed-FFS plans offered nationwide. Most of these managed-FFS plans offer point-of-service options in limited geographic areas. The rest of the plans are HMO plans that are typically offered to limited service areas in metropolitan areas with many federal employees.

Under FEHBP, all federal government employees may enroll themselves and any eligible family members in any plan offered in their geographic area. The number of plans open to a beneficiary depends on his or her geographic location. There are two types of coverage: self-only and self and family. Employees can change their enrollment status once a year open season, which runs from early November through mid-December. During this time, beneficiaries can change their insurance carrier and/or their type of coverage. This is more limiting than what DOD beneficiaries face under TRICARE. DOD beneficiaries may enroll in TRICARE Prime at any time, although, once enrolled, they must remain enrolled for one year. Non-Prime enrollees need not enroll at all to use TRICARE Standard or Extra.

Premiums are determined by the participating insurance carriers. The federal government pays up to 75 percent of the premium costs; the remainder is paid for by the beneficiaries. In the 1999 calendar year, the federal government paid up to $1,873.56 for self-only

coverage and $4,170.14 for self and family coverage. Of course, the nominal amount of the government contribution depends on the total premium charged by each insurance carrier.

Managed-FFS plans

As of 1998, about 70 percent of all persons covered by FEHBP plans chose managed-FFS coverage. All eligible beneficiaries may choose from among 10 different fee-for-service plans. Six other plans are open to only specific employee groups. Table 4 lists the different plans, their 1998 enrollments, and their 1999 annual employee premium shares.[2]

Table 4. Managed fee-for-service plans offered under FEHBP

Plan	Total covered	Premium ($)	
		Self-only	Self and family
Blue Cross/Blue Shield - Standard	3,319,925	723.32	1,620.32
Mail Handlers Benefit Plan - High	805,900	1,011.14	1,914.38
Govt. Employees Hospital Association (GEHA)	511,709	942.50	1,903.46
NALC Health Benefit Plan	220,349	1,121.64	2,230.54
APWU Health Plan	176,748	954.20	2,035.54
Mail Handlers Benefit Plan - Standard	128,144	498.42	1,081.60
Blue Cross/Blue Shield - High	121,962	1,652.82	3,370.12
Rural Letter Carriers Association*	86,838	885.56	1,454.70
SAMBA Health Benefit Plan*	34,171	1,032.72	2,674.10
Association Benefit Plan*	32,971	652.60	1,754.48
Panama Canal Area Benefit Plan*	25,470	598.26	1,297.66
Foreign Service Benefit Plan*	18,978	774.02	2,267.46
Postmasters Benefit Plan - Standard	18,171	1,087.84	2,235.74
Alliance Health Benefit Plan	6,749	1,621.36	3,239.08
Postmasters Benefit Plan - High	4,605	3,010.02	6,366.88
U.S. Secret Service Employees*	4,231	574.60	1,361.88
BACE Health Benefit Plan*	1,916	N.A.	N.A.
Total covered by FFS in 1998	**5,512,835**		

* Plan open only to specific groups of federal government employees.

Note: The BACE Health Benefit Plan was no longer offered in 1999.

2. For calendar year (CY) 2000, premiums increased by about 8 percent for BC/BS, NALC, and APWU; by about 25 percent for the GEHA plan; and by about 17 percent for the Mailhandlers' high option.

The Blue Cross and Blue Shield (BC/BS) standard option plan is by far the most popular plan in this group, covering 60 percent of all those covered by managed-FFS plans. One thing that is striking is that the most popular plans are not necessarily the cheapest. For instance, the BC/BS standard option plan is much more popular than the Mailhandlers' standard option plan despite the fact that it is about $225 more expensive. The Mailhandlers' high option plan is also popular (15 percent of FFS enrollees), despite the fact that it is expensive. Obviously, premium expense is only one factor that federal employees consider when choosing plans; they also consider the extent of coverage and plan quality. Some of the plans have smaller enrollments because they are offered only to certain employee groups.

All of the managed-FFS plans include preferred provider networks. Under these plans, enrollees are free to see any doctors but generally face lower out-of-pocket expenses if they see doctors on the network. For instance, under the BC/BS standard option, an individual faces a per-admission deductible of $250 for inpatient care if he or she goes to a hospital that is not on the network. If that individual goes to a hospital on the network, the inpatient deductible is waived. Also, copayments are lower for outpatient visits to network physicians than to non-network physicians. This is similar to TRICARE Standard/Extra. DOD beneficiaries not enrolled in Prime can see civilian providers and be reimbursed for most of their expenses, but they are reimbursed at a higher rate if they use providers on the TRICARE preferred provider network (Extra).

Health maintenance organizations

As of 1998, about 30 percent of all FEHBP enrollees (nearly 2.4 million people) were enrolled with HMOs. Unlike the managed-FFS plans, the individual HMOs do not enroll beneficiaries nationally. For instance, to enroll in the George Washington University Health Plan, a beneficiary must live in the Washington, DC, metropolitan area. The reason for this is rather simple. An HMO provides all of its care through a limited network of providers. Unlike under managed-FFS plans, beneficiaries generally are not reimbursed for care received

out of the network.[3] Therefore, an HMO can offer coverage only to individuals living within geographic areas where they have access to its provider network.

This brings us to an important point: the number of HMOs that a beneficiary has to choose from depends on where the beneficiary lives. For instance, federal employees living in the Washington, DC, metropolitan area can choose from among eight different HMO plans. Among the other metropolitan areas where federal employees face a similar number of choices are New York, Denver, San Antonio, and Seattle. In other metropolitan areas, federal employees are given far fewer HMO choices. Only one HMO serves federal employees in the Little Rock, AR, area. The same is true in metropolitan areas such as Billings, MT (FEHBP-eligibles living in the rest of the state do not have an HMO option) and Jackson, MS. FEHBP-eligibles can choose from only two HMO plans in cities such as Memphis, TN, Providence, RI, and Birmingham, AL. Also, FEHBP eligibles living in rural areas of many states have no HMO options under the program.

In this sense, FEHBP is not a uniform benefit. Some FEHBP-eligibles have many more choices when it comes to HMO coverage. Others don't even have an HMO option and can choose from among only the managed-FFS plans. Some perceive TRICARE to not provide a uniform benefit because Prime is not offered everywhere. Joining FEHBP would not fully solve this problem, because a significant number of DOD beneficiaries would still not have access to HMO care.

Over 400 separate HMO plans are offered under FEHBP. As we have already mentioned, no enrollees can choose from among all of these plans and the costs they face vary widely as well. In 1999, Foundation Health Plan in Florida was the least expensive plan. The employee premium share was just $279 for a self-only plan and $787 for a self and family plan. The Kitsap Physician Service high option plan in Washington State was the most expensive. The employee premium

3. A few HMOs offer a point-of-service option where enrollees can use non-network providers, usually with substantial cost sharing in the form of high deductibles and copays. This is similar to the point-of-service option under Prime.

share was $2,394 for a self-only plan and $5,088 for a self and family plan.[4] Although all HMO plans have to offer at least a minimal level of coverage in order to participate in FEHBP, there is still variance in the level of coverage offered under each plan. We will further elaborate on this when we compare TRICARE Prime with the most popular FEHBP HMO plans.

Comparing TRICARE Standard/Extra with FEHBP managed FFS options

Summary of FFS plan comparisons

Health care plans are complicated; some aspects of one plan may be better than another, but some can be worse. In the next few sections, we will descibe in some detail how two of the managed-FFS plans under FEHBP compare with TRICARE Standard/Extra. First, we will summarize what's coming by providing two tables. The first presents the basic plan design of TRICARE Standard/Extra as compared with two FEHBP managed-FFS plans. Then, we provide a "scorecard" based partly on the first table that describes when TRICARE Standard/Extra is "better" than the FEHBP plans.

We compare the TRICARE Standard/Extra benefit with the benefits offered under the two most popular FEHBP managed FFS plans. These are the BC/BS standard option and the Mailhandlers Benefit Plan (MBP) high option. As we saw earlier, about 75 percent of all persons covered under FEHBP managed FFS plans are covered by one of these two plans.

Table 5 summarizes the plan design for the TRICARE Standard/Extra plan versus the major elements of the two FEHBP managed-FFS plans. We compare them across several dimensions of coverage,

4. As was true for the managed FFS plans, HMO premiums increased for CY 2000.

including premiums, outpatient and inpatient deductibles or cost shares, and the catastrophic limit.

Table 5. Comparing Standard/ Extra with Blue Cross/Blue Shield and Mailhandlers

	Plan							
	Extra		Standard		BC/BS Standard[a]		MBP High	
	ADD*	RET**	ADD	RET	PPO***	Non-PPO	PPO	Non-PPO
Premiums								
Single	None	None	None	None	$733	$733	$1,011	$1,011
Family	None	None	None	None	$1,620	$1,620	$1,915	$1,915
Outpatient deductibles								
Individual	$150[b]	$150	$150	$150	$200	$200	None	None
Family	$300	$300	$300	$300	$400	$400	None	None
Outpatient cost share								
Copay	15%	20%	20%	25%	5%	25%	5%	30%
Inpatient deductible								
Per admission	$25	None	$25	None	None	$250	None	$250
Inpatient cost share								
Hospital copay	$11/day	20%	$11/day	25%	None	None	None	None
Physician copay	None	20%	None	25%	None	25%	None	30%
Catastrophic limit								
Individual	$1,000	$7,500	$1,000	$7,500	$2,000	$3,750	$2,000	$3,000
Family	$1,000	$7,500	$1,000	$7,500	$2,000	$3,750	$2,000	$3,000

a. All coverage elements are for CY 2000.
*ACC = Active duty dependents
**RET = Retirees and their dependents.
***PPO = Preferred provider option.
b. The individual and family deductibles for dependents of active duty for paygrades E-1 to E-4 are $50 and $100, respectively.

In table 6 we present a summary of what we found in the table above, together with some additional findings from what we'll be describing in the next section. Standard/Extra compares favorably with both the BC/BS standard option and the MBP high option. The main weaknesses of Standard/Extra coverage are in the coverage for DOD retirees and their dependents. Coverage for inpatient care is particularly bad for this beneficiary group. Also, the out-of-pocket maximum

(catastrophic cap) is much higher for these beneficiaries than it is for enrollees in either of the FEHBP plans.

Table 6. Comparing TRICARE Standard/Extra with two FEHBP managed-FFS plans

Dimension of Coverage	Standard/Extra
Premium	Dominates both plans.
Outpatient deductible	Is comparable to BC/BS but worse than Mailhandlers.
Provider services	Is comparable to BC/BS and Mailhandlers.
Retail pharmacy	Dominates both plans.
Mail-Order pharmacy	Dominates both plans.
Ambulatory surgery	
In network	Dominates both plans for active duty dependents, but is worse for retirees and their dependents.
Out of network	Dominates both plans.
Inpatient care	
In network	Is comparable to both plans for active duty dependents, but is worse for retirees and their dependents.
Out of network	Dominates both plans for active duty dependents, but is worse for retirees and their dependents.
Outpatient mental health	Dominates both plans.
Inpatient mental health	Is comparable to BC/BS and Mailhandlers.
Out-of-Pocket maximum	Dominates both plans for active duty dependents, but is worse for retirees and their dependents.

Standard/Extra dominates both FEHBP plans when it comes to premium payments, pharmacy coverage, and outpatient mental health. In addition, for active duty dependents, Standard/Extra dominates both plans when it comes to ambulatory surgery, out of network inpatient care, and out of pocket maximum. The outpatient deductible compares favorably with the one required under the BCBS standard option but not with the one required under the MBP high option.

In what follows, we compare TRICARE Standard/Extra with the two FEHBP plans in more detail.

Side-by-side comparison

In our comparison, we examine the benefits offered under each of these plans (in and out of network) across several dimensions of coverage. These include coverage for outpatient care, inpatient care, well-child care, outpatient and inpatient mental health care, and prescription drug purchases.

Additional details on the various plans are provided in appendix A. In the appendix, we summarize all benefits, both in- and out-of-network, including several not discussed in the text (laboratory and X-ray, emergency care, and vision care, among others).

Plan highlights

Premium charges

Currently DOD does not charge a premium for coverage under TRICARE Standard/Extra. Federal employees covered by BC/BS standard option and the MBP high option must contribute to their premium payments. The BC/BS standard option costs each enrollee $733 per year for individual coverage and $1,620 per year for family coverage. The MBP high option costs each enrollee $1,011 per year for individual coverage and $1,915 per year for family coverage. Standard/Extra is definitely the richest plan as far as premium cost-sharing is concerned.

Annual outpatient deductible

Most DOD beneficiaries who use Standard/Extra must meet annual deductibles for outpatient care of $150 per person up to $300 per family. Dependents of junior enlisted (E4 and below) active duty personnel need meet deductibles of only $50 per person up to $100 per family. This compares favorably with the BC/BS standard option annual deductibles of $200 per person and $400 per family, but does not compare favorably with the MBP high option which does not require that an annual deductible be met before benefits are paid. The MBP high option plan is definitely the richest here, but

Standard/Extra is not far behind especially when compared to the BCBS standard option plan that is so popular among the FEHBP enrollees.

Cost shares for Extra and Standard users

In network. TRICARE Extra relies on a network of providers who have contracted with DOD to provide services at a discounted cost. In almost all cases, after they have met their annual outpatient deductibles, active duty family members must pay 15 percent of these negotiated fees. Retirees and their family members must pay 20 percent of these negotiated fees. Unless otherwise stated below, this is the coverage for DOD beneficiaries in network for each dimension of benefit.

Out of network. TRICARE Standard providers are *not* part of a formal network providing care to DOD beneficiaries. In almost all cases, after they have met their annual deductibles, active duty family members must pay 20 percent of *allowable charges.* Retirees and their family members must pay 25 percent of allowable charges. Providers who accept Standard patients must accept the allowable charges.[5]

Individual provider services

In network. For BC/BS standard option enrollees, the cost shares are a $12 copay for office visits and 5 percent of a negotiated rate for office-based outpatient surgery.[6] For MBP high option enrollees, the cost share is a $10 to $15 copay for office visits and a $50 copay for office-based outpatient surgery. It is hard to say which plan dominates here, although Extra certainly does not fare badly. Office-based outpatient surgery coverage appears to be an area where the two FEHBP plans dominate.

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5. The allowable charges are identical to the charges allowed under the Medicare program. If a provider refuses to treat a DOD beneficiary for the allowable charge, the provider is no longer eligible to treat Medicare patients.

6. For Extra users, the general copayments described above apply to any type of outpatient provider service, be it an office visit or office-based outpatient surgery.

Out of network. BC/BS standard option enrollees must pay 25 percent of allowable charges (after they have met their deductible) for any type of outpatient provider service if they see a non-network provider. MBP high option enrollees must pay 30 percent of allowable charges for office visits to non-participating providers. If they need office-based outpatient surgery they must meet a $50 deductible as well as pay 30 percent of the charges above the deductible. Overall, Standard compares quite favorably with the non-network components of the two FEHBP plans in this dimension of the benefit.

Retail prescription drug coverage

In network. Enrollees in the BC/BS standard option face a separate prescription drug deductible of $50 per person or $100 per family. After meeting the deductible they must pay 20 percent of a negotiated discounted rate. Enrollees in the MBP high option face a prescription drug deductible of $250 per person. After meeting this deductible they must pay 25 percent of actual charges. Extra compares very favorably with both of these plans. Not only is there no separate prescription drug deductible, but Extra pays a benefit for prescription drugs even if a beneficiary has not met his or her annual outpatient deductible. Because of this, Extra easily dominates the other two plans in-network benefits in this dimension.

Out of network. Enrollees in the two FEHBP plans who use non-network pharmacists face the same prescription drug deductibles as they would face if they used in-network pharmacists. In this case, however, enrollees in the BC/BS standard option are responsible for at least 40 percent of the average wholesale price (AWP) of all drugs obtained. The plan pays 60 percent of AWP, so if the actual charge for the drug is greater than the AWP, the enrollee must pay the difference as well. Enrollees in the MBP high option are responsible for 50 percent of the actual charges. TRICARE Standard users must meet their annual outpatient deductible before Standard pays a portion of prescription drug costs, but again there is no separate prescription drug deductible. Standard users pay a much lower cost share (20 or 25 percent) than enrollees in the two FEHBP plans. So, once again, the TRICARE plan dominates the FEHBP plans along this dimension of coverage.

Mail order prescription drug benefits

In network. Enrollees in the BCBS standard option must pay a $12 copay for prescriptions up to 90 days. The prescription drug deductible does not apply. Enrollees in the MBP high option must pay a $10 copay for generic fills and a $40 copay for brand name fills for prescriptions up to 90 days. The drug deductible of $250 per person applies to the mail order program. The TRICARE mail order benefit compares very favorably with these two plans. There is no prescription drug deductible and the cost shares are only $4 per fill for active duty family members and $8 per fill for retirees and their dependents.

Out of network. By definition the mail order benefit is only available as a within network benefit.

Ambulatory surgery performed at hospital or surgical center

In network. Active duty family members are responsible for a $25 copayment per occurrence and retirees and their dependents are responsible for 20 percent of negotiated fees. BCBS standard option enrollees must pay 5 percent of negotiated fees, which is richer coverage than what the DOD retirees receive, but not likely to be as rich as the benefit for active duty family members. Enrollees in the MBP high option must pay a $50 copay per occurrence, which is also richer coverage than what the DOD retirees have, but definitely not as rich as the benefit for active duty members. Thus, active duty family members do quite well when compared to enrollees in the FEHBP plans, but retirees and their dependents do not do as well as the FEHBP enrollees.

Out of network. Out of network, active duty family members are still responsible for a $25 copayment per occurrence but retirees and their dependents are responsible for 25 percent of allowable charges. The benefit for each type of DOD beneficiary compares very favorably with the out of network benefit for BCBS standard option enrollees. These enrollees must pay 25 percent of allowable charges. The benefit also compares quite favorably with the MBP high option. Enrollees in this plan must pay 30 percent of reasonable and customary charges after paying a $50 copayment for the surgeons care and paying a $250 per occurrence deductible for facility costs. Again,

along this dimension of the benefit, active duty family members are definitely best off and retirees and their dependents are at least as well off under TRICARE.

Inpatient care (including inpatient maternity)

In network. Active duty family members must pay $9.90 per day with a minimum of $25 per admission. This covers both institutional and professional charges.[7] DOD retirees and their dependents must pay the lesser of 25 percent of negotiated institutional charges or $250 per day as well as 20 percent of negotiated professional charges. In addition, TRICARE Extra does not cover civilian inpatient care for beneficiaries living within MTF catchment areas unless they are turned away by the MTF due to non-availability. Note that if a beneficiary is able to receive care at an MTF, the care is provided at no cost to the beneficiary. Thus, at least for those living near MTFs, military care provides a significant inpatient benefit.

Enrollees in the BCBS standard option get a much richer benefit than do the DOD retirees under Extra, although the benefit appears to be less rich than the one that active duty family members receive. Under this plan, enrollees are not charged anything for institutional care and must pay only 5 percent of negotiated professional charges.

Enrollees in the MBP high option get a similar benefit. They are not charged for institutional care. Further, they must pay a $50 copayment for each professional service performed. For instance, they would have to pay a $50 copay for the surgeon for each procedure performed and a $50 copay for the anesthesiologist.

Overall, the TRICARE Extra benefit for active duty family members is quite rich, even when compared to the two FEHBP plans. For DOD retirees and their dependents, the Extra benefit isn't as good as the FEHBP benefits, but these individuals are still eligible for free inpatient care at MTFs, and for those living near MTFs this is a significant supplement to the coverage under Extra.

7. Professional charges include fees paid to surgeons, anesthetists, etc.

Out of network. The coverage for non-network providers under TRICARE Standard is generally the same as it is under TRICARE Extra. The only difference is that retirees and their dependents must pay the lesser of 25 percent of allowable charges or $360 per day for institutional care as well as 25 percent of allowable professional charges. The rules regarding use of civilian hospitals for beneficiaries living in catchment still apply.

Enrollees in the BCBS standard option must pay a $250 per admission deductible for institutional care. In addition to this they are responsible for 25 percent of allowable professional charges. Therefore, their benefit is not nearly as rich as the TRICARE Standard benefit for active duty family members. It is richer than the benefit for DOD retirees and their dependents but one must remember that these beneficiaries are still eligible for free inpatient care at MTFs.

Enrollees in the MBP high option also must pay a $250 per admission deductible for institutional care. In addition to this they are responsible for 30 percent of allowable professional charges above and beyond their $50 copays. Therefore, their benefit is not nearly as rich as the TRICARE Standard benefit for active duty family members. It is richer than the benefit for DOD retirees and their dependents but, again, one must remember that these beneficiaries are still eligible for free inpatient care at MTFs.

Outpatient mental health/substance abuse treatment

In network. DOD beneficiaries pay their normal 15 or 20 percent copays for care from network providers. The benefit is generally limited to 23 visits per year but beneficiaries can apply to their TRICARE contractor for approval for more visits. Enrollees in the BCBS standard option must pay 40 percent of allowable charges and are limited to 25 visits per year. Enrollees in the MBP high option must pay 50 percent of allowable charges and are limited to 20 visits per year. In short, the TRICARE Extra benefit compares quite favorably with the in-network outpatient mental health benefits provided under the two most popular FEHBP plans.

Out of network. DOD beneficiaries pay their normal 20 or 25 percent copays for care from non-network providers. Again, the benefit is

generally limited to 23 visits per year but beneficiaries can apply to their TRICARE contractor for approval for more visits. The non-network benefits under the BCBS standard and MBP high options are the same as the in-network benefits, so TRICARE Standard also compares quite favorably with the two popular FEHBP plans along this dimension of coverage.

Inpatient mental health/substance abuse treatment

In network. Active duty family members are responsible for a $20 per diem copayment with a minimum $25 charge per admission. DOD retirees and their dependents are responsible for 20 percent of both negotiated institutional and separately billed professional charges. The mental health coverage is for up to 30 days per year for beneficiaries 19 years of age or over and for up to 45 days for beneficiaries under 19 years of age. Up to 150 days of residential treatment for children and adolescents are also covered. Beneficiaries are also covered for up to one substance abuse rehabilitation program per year, but for no more than three such programs in a lifetime.

Enrollees in the BCBS standard option must pay 40 percent of negotiated fees if they receive their care from network facilities. The copayment is capped at $150 per day. For mental health care, enrollees are covered for up to 100 inpatient days per year. For substance abuse treatment, they are covered for one 4-week rehabilitation program per lifetime. The TRICARE Extra benefit is more generous than the BCBS standard option in-network benefit as long as stays do not exceed 30 or 45 days. For longer inpatient stays, it is more ambiguous.

Enrollees in the MBP high option must pay 30 percent of negotiated fees if they receive their care from network facilities. For both mental health care and substance abuse treatment, enrollees are covered for up to 45 inpatient days per year. The TRICARE Extra benefit is definitely richer for active duty family members, at least for children and for adults who need fewer than 30 inpatient mental health days per year. The benefit is a little richer for DOD retirees and their dependents, as they are responsible for a smaller percentage of negotiated charges. Again, for adults who exceed 30 days of inpatient mental health care, the MBP high option is probably a better plan.

Out of network. The TRICARE Standard benefit is the same as the TRICARE Extra benefit except for the following difference. Under TRICARE Standard DOD retirees and their dependents must pay 25 percent of institutional and additional professional charges, instead of 20 percent. Also, the liability for institutional charges is capped at $137 per day for this beneficiary group.

The BCBS standard option benefit for out of network care is the same as the benefit for in network care, except that the daily copayment is capped at $250 per day instead of $150 per day. Again TRICARE Standard is a richer plan for active duty family members except for cases of very long inpatient mental health stays. For DOD retirees, TRICARE Standard compares very favorably for stays of less than 30 to 45 days. For longer stays, the BCBS standard option appears to be a better plan.

The MBP high option benefit for out of network care is the same as the benefit for in network care, except that in addition to the 30 percent copayment, enrollees are also responsible for a $250 per admission deductible. The TRICARE Extra benefit is definitely richer for active duty family members, at least for children and for adults who need fewer than 30 inpatient mental health days per year. The benefit is richer for DOD retirees and their dependents, as they are responsible for a smaller percentage of allowable institutional and professional charges and they don't have to meet a separate inpatient mental health deductible. Again, for adults who exceed 30 days of inpatient mental health care, the MBP high option may be a better plan.

Out-of-pocket maximum

In network. Active duty family members' liability for out of pocket expenses for covered services is capped at $1,000 per calendar year. DOD retirees and their dependents have their liability capped at $7,500 per year. Enrollees in both the BCBS standard option and the MBP high option have their out of pocket liability capped at $2,000 per year when they use network providers. Therefore, the TRICARE Extra benefit compares very favorably with the two popular FEHBP plans for active duty family members but it compares very unfavorably for DOD retirees and their dependents.

Out of network. Again, the active duty family members' liability for out of pocket expenses for covered services is capped at $1,000 per calendar year, whereas DOD retirees and their dependents have their liability capped at $7,500 per year. Enrollees in the BCBS standard option have their out of pocket liability capped at $3,750 per year when they use non-network providers. Those enrolled in the MBP high option have their liability capped at $3,000 per year. Again, the TRICARE Standard benefit compares very favorably for active duty family members but very unfavorably for DOD retirees and their dependents.

Quantifying the benefits—OOP costs

The simple side by side comparison above still leaves us with the question of how TRICARE Standard/Extra compares with the FEHBP managed FFS plans overall. One way to answer this is to somehow combine all of the different dimensions of coverage (or as many as possible) into one index. The obvious choice for such an index in this case is how much an individual would have to pay out of pocket for a given level of health care utilization under each plan. Our approach was to look at the health care utilization of a representative sample of individuals to determine how many would be better or worse off under TRICARE Standard/Extra.

The data

The data and actuarial support were provided by the Hay Group who served as consultants on our project. The data set consists of observations on 385 distinct utilization patterns meant to represent the utilization of individuals covered by employer-provided health insurance in the private sector. Each observation is weighted by the percentage of individuals in the population exhibiting this particular utilization pattern. For instance, one observation represents the state of having no health care utilization and is given a weight of about 10 percent, which is the percentage of the population who have no health care use in a given year.

For each observation, total health care expenditures are broken out into the following ten categories:

- Inpatient hospital
- Inpatient physician
- Outpatient hospital
- Outpatient physician
- Surgical
- Outpatient laboratory and x-ray
- Outpatient prescription drugs
- Inpatient psychiatric treatment
- Outpatient psychiatric treatment
- Other expenses.

Using information on the level of coverage provided by a plan for each dimension of care, the Hay Group calculated how much an individual covered by the plan would have to pay for care. They did this for TRICARE Standard, TRICARE Extra, the Blue Cross/Blue Shield standard option, the Mailhandlers high option, and for a combination of the top five FEHBP managed FFS plans.[8]

Results

Table 7 presents a summary of our results. It shows what percentage of the population represented in the Hay Group data would have lower out of pocket expenses, including premium payments, if they chose single coverage in one of the FEHBP plans rather than TRICARE Standard/Extra. There are three columns, because the level of coverage under TRICARE Standard/Extra varies by beneficiary status.

We found that OOP expenses, including premiums, would be higher under FEHBP plans than under TRICARE Standard/Extra for almost all individuals in the population. Much of this is due to the fact that

8. These plans are the BCBS standard option, the MBP high option, the Government Employees Hospital Association, the NALC plan, and the APWU health plan.

Standard/Extra users do not need to pay a premium, whereas FEHBP enrollees have to pay a significant share of their premium costs. The BC/BS standard option enrollees must pay $733 for single coverage, the MBP high option enrollees must pay $1,011, and the enrollees in the top five FEHBP plans pay an average of $817. A handful of individuals would do better under the FEHBP plans than under the TRICARE Standard/Extra plan for retirees and their dependents. This is mainly because of the fact that: (1) inpatient coverage for retirees under Standard/Extra is not very good and (2) that this group faces a fairly high out of pocket maximum for covered expenses.[9]

Table 7. TRICARE Standard/Extra coverage dominates FEHBP Managed-FFS coverage

	% with OOP expenses lower than Standard/Extra for		
	Active duty dependents		Retirees and
FEHBP Plans	E4 and below	E5 and above	their dependents
BCBS Standard	~0[a]	~0	6.7
Mailhandlers High	~0	~0	4.2
Blended FEHBP	~0	~0	5.5

a. Actual values are less than one-half of one percent, which we round down to 0.

Also, we observed major differences in OOP plus premium payments. In table 8, we report the annual OOP plus premium expenses under four different plans: Standard/Extra for dependents of active duty ranked E5 and above, BC/BS standard option, MBP high option, and the blended FEHBP plan. We also break out the average annual expenses by the level of total medical expenses.

For example, we find that the average person with total annual medical expenses under $1,000 would have out of pocket payments of $90 under Standard Extra, a total cost (OOP plus premium) of $823 under the BCBS standard option, $1,049 under the MBP high option,

9. We find that these individuals have very high inpatient expenditures. One should also note that such individuals under Standard/Extra either must get free inpatient care at military facilities on a space-available basis or at least have the option of doing so. We have not included this as part of the Standard/extra coverage package.

and $907 under the blended FEHBP plan. One can see that, in almost all of the total expense categories, average costs are considerably lower under TRICARE Standard/Extra.

Table 8. Average annual OOP plus premium expenses by plan and by expense level

Total annual medical expenses	Percentage of population	Plan			
		TRICARE Standard/ Extra	BC/BS standard option[a]	MBP high option[b]	Blended FEHBP[c]
Under $1,000	53	$90	$823	$1,049	$907
$1,000 - $4,999	36	$414	$1,160	$1,367	$1,244
$5,000 - $9,999	6	$935	$1,869	$2,115	$1,987
$10,000 - $24,999	3	$823	$2,093	$2,427	$2,287
$25,000 - $49,999	1.5	$1,466	$2,911	$4,788	$2,665
$50,000 or more	0.5	$11,109	$7,825	$13,163	$9,316
Total	100	$355	$1,112	$1,385	$1,203

a. Includes the premium of $733.
b. Includes the premium of $1,011.
c. Includes the premium of $817.

Even if we didn't include the FEHBP premium payments, TRICARE Standard/Extra still compares favorably with the other plans. Only the MBP high option plan leaves an individual with lower OOP costs—$274 versus $355—but it costs $1,011 up front to purchase this coverage, which is only marginally better.

Overall, compared to FEHBP managed FFS coverage, we conclude that TRICARE Standard/Extra provides a rich set of benefits. The plan provides comparable coverage across most dimensions of care and most importantly, no premium is charged in order for beneficiaries to use the plan. Two problems with Standard/Extra are the rather high OOP maximum for retirees and their dependents and the somewhat poor inpatient coverage for this group. Both of these flaws, however, are tempered by the fact that these individuals may receive care free of charge from military facilities on a space-available basis. In fact, Standard/Extra users living in catchment must get their inpatient care from military facilities if there is space available.

Comparing Standard/Extra with private sector plans

We have found that TRICARE Standard/Extra provides very rich coverage when compared to the managed FFS plans offered under FEHBP. The plan is particularly rich because DOD beneficiaries need pay no premium in order to use it.

In addition to the FEHBP plans, the Hay Group generated out-of-pocket cost estimates for managed FFS plans that are representative of the coverage that employees in the private sector get. The Hay Group used three different representative plans. One plan offers very high, almost full, coverage. The second plan offers a medium level of coverage. The third plan offers a relatively low level of coverage. A description of the coverage under these plans is in appendix A. The Hay Group generated OOP costs for each observation in their data set generated by each plan and took the arithmetic average across the three plans. The average employee share of premiums for these plans was $443 per year for single coverage.

Again, we considered what percentage of the population represented by the Hay Group data would do better in the private sector managed-FFS plan than under Standard/Extra. We included premiums in our estimates of total OOP costs. We found that only 0.1 percent of the population would do better under the private sector managed-FFS plan than under the Standard/Extra coverage given to family members of junior enlisted personnel. Only about 0.2 percent would do better under the private sector managed-FFS than under the Standard/Extra coverage given to family members of other enlisted personnel. Finally, about 10 percent would do better than under the Standard/Extra coverage given to retirees and their dependents. The results are similar to those we found when we looked at the FEHBP plans and for the same reasons.

In table 9, we report the annual expenses under two plans: Standard/Extra for dependents of active duty ranked E5 and above and the representative private sector managed-FFS plan. Again, we also break out the average OOP plus premium costs by the level of total medical expenses. Even if we don't include the premium for the private sector plan, Standard/Extra compares quite favorably with average OOP costs of $355 versus $625.

Table 9. Average annual OOP plus premium expenses under various plans at various levels of total medical expenses

Total annual medical expenses	Percentage of population	Plan ($)	
		TRICARE Standard/ Extra[a]	Private Sector Managed FFS[b]
Under $1,000	53	90	518
$1,000 - $4,999	36	414	796
$5,000 - $9,999	6	935	1,427
$10,000 - $24,999	3	823	1,424
$25,000 - $49,999	1.5	1,466	1,817
$50,000 or more	0.5	11,109	7,772
Total	100	355	1,068

a. Coverage for Active duty dependents, E5 and up.
b. Includes the average premium of $443.

Comparing TRICARE Prime with FEHBP HMO options

Summary of HMO plan comparisons

Comparing Prime with Kaiser and Aetna plans

As a brief overview of coverage in Prime and in FEHBP HMO plans, we present a side-by-side comparison of the Prime benefit with the benefit provided through Kaiser of Southern and Northern California and through Aetna in table 10. The Kaiser plans cover over a quarter of a million FEHBP beneficiaries in California and the Aetna plan is available to federal employees in many different states.

The most obvious finding is that Prime is much less expensive in terms of premium payments than either of the other two plans. At the same time, the copays for both outpatient and inpatient care are a bit higher under Prime. Still, one should keep in mind that, if a Prime enrollee uses a military provider, there is no OOP cost to the enrollee. Also, the prescription drug coverage under Prime compares very favorably with the coverage from each of the other two plans. Finally, as far as outpatient mental health is concerned, Prime has the advantage that the number of visits is less limited, but it has no advantage in terms of the per-visit copay.

Table 10. Comparing TRICARE Prime with Kaiser Aetna

Dimension of coverage	Kaiser	Aetna	TRICARE Prime[a] ADD E1-E4	ADD E5+	Retirees
Premium	Single:$494 Family:$1,170	Single:$560 Family:$1,970	None	None	Single: $230 Family: $460
Copays for outpatient care					
General	$5	$5	$6	$12	$12
Prenatal care	None	$5	$6	$12	$12
Immunizations	None	$5	$6	$12	$12
X-ray and lab	None	$5	None	None	None
Well-baby care	None	$5	$6	$12	$12
Inpatient care					
Per diem copay	None	None	$11	$11	$11
Outpatient mental health					
Visit limit	40	40	104	104	104
Copay	$10	$10 - $20[b]	$10	$20	$25
Prescription drugs					
Retail copays					
Generic	$5	$5	$5	$5	$9
Brand	$5	$10	$5	$5	$9
Amount per fill	90 days	34 days	30 days	30 days	30 days
Mail order copays					
Generic	No mail order	$10	$4	$4	$8
Brand	No mail order	$20	$4	$4	$8
Amount per fill	No mail order	90 days	90 days	90 days	90 days

a. The copays charged under TRICARE Prime are for civilian network care only. No out-of-pocket costs are incurred if a Prime enrollee uses the MTF.

b. The size of the copay depends on how many visits an enrollee has already had.

In table 11, we summarize the comparisons we make in the following sections. What we find is that Prime offers a benefit that is usually comparable to or better than FEHBP HMO coverage at a much lower premium cost. The outpatient copays for dependents of personnel ranked E5 and higher and for retirees and their dependents are a bit higher than the FEHBP norm. Under FEHBP, most enrollees pay $5 to $10 per visit, whereas under Prime, most enrollees must pay $12 per visit. The retail pharmacy copay for retirees and their dependents of $9 per fill is also a little high compared to the FEHBP norm. The

FEHBP norm for generic retail fills is $5 or less and for brand retail fills about 61 percent pay less than $9.

Table 11. Summarizing the comparison of TRICARE Prime with FEHBP HMOs

Dimension of coverage	TRICARE Prime[a]
Premium	Dominates the 100 FEHBP plans.
Outpatient copays	Is comparable to the 100 FEHBP plans for junior enlisted, but is worse for other enrollees.
Inpatient copays	Is comparable to the 100 FEHBP plans.
Retail pharmacy	Dominates the 100 FEHBP plans for active duty dependents, but is slightly worse for retirees.
Mail order pharmacy	Dominates the 100 FEHBP plans.
Outpatient mental health	Is comparable to the 100 FEHBP plans.

a. Civilian network benefit only.

Side-by-side comparison

HMO sample

As we noted above, managed care companies provide more than 400 different HMO products to civil service employees and retirees across the country through FEHBP. Kaiser and Aetna cannot be used to summarize this benefit. Therefore, in the analysis that follows we considered a sample of the 100 HMO plans with the highest enrollments. Altogether, these plans covered almost 1.9 million beneficiaries, or nearly 90 percent of all the beneficiaries with HMO coverage under FEHBP. A list of the plans we included in our sample can be found in appendix A.

Premiums

The average employee share of the premium charged for self-only coverage in our sample was $541 in 1999. The distribution of premiums was fairly tight. For instance, 50 percent of the people covered by these plans faced self-only premiums of between $466 and $560. Only 10 percent had self-only premiums of over $671 and only 10 percent had self-only premiums of less than $432.

Under the federal plan, the employee share of premiums was higher for family plans. The average premium enrollees faced was $1,490 and again the distribution was fairly tight although not as tight as the distribution of self-only premiums. Still, about 50 percent of the enrollees paid annual premiums of between $1,160 and $1,804. Only about 10 percent face premiums of over $2000 and only about 10 percent faced premiums of under $1,100.

Of course, TRICARE Prime compares quite favorably here, especially for active duty dependents who need pay no enrollment fee to join. Even for the retirees and their dependents, the Prime enrollment fees of $230 for single coverage and $460 for family coverage are much less than the premiums FEHBP HMO enrollees pay for their coverage.

Outpatient coverage

Prime enrollees face no cost sharing arrangements for outpatient visits when they use military facilities. None of the HMOs offered under FEHBP provide any better coverage than this. Only about 6 percent of all of the enrollees in the top 100 HMO plans have coverage that is equal to the Prime coverage at MTFs. When Prime enrollees use civilian network providers, however, they must pay copays of either $6 or $12.[10] The $6 copay applies to dependents of active duty personnel ranked below E5. The $12 copay applies to all other dependents of active duty personnel and to all retirees and their dependents.

We have found that the copays are relatively high, especially the $12 that a majority of Prime enrollees must pay when they use civilian network providers. In table 12, we present results for five different types of outpatient visits: general outpatient visits, prenatal care visits, childhood immunization visits, laboratory and X-ray services, and well-baby care. For each type of visit we calculated the percentage of the enrollees in the top 100 FEHBP HMO plans that have more complete coverage than Prime enrollees in each of the following three

10. Congress is currently considering doing away with the copay to network providers for active duty family members.

beneficiary groups: active duty dependents (ADDs), E1 - E5; ADDs E5 and higher; and retirees and their dependents (RETs).

Table 12. Comparing prime civilian network cost sharing for outpatient care with FEHBP HMO cost sharing

	% of FEHBP enrollees with better coverage[a]		
Dimension of coverage	**ADDs E1-E4**	**ADDs E5 and up**	**RETs**
General outpatient	75	99	99
Prenatal care	90	99	99
Childhood immunizations	81	99	100
X-ray and lab	0	0	0
Well-baby care[b]	78	99	99

a. Note that we are comparing FEHBP with the Prime civilian network cost sharing only.
b. Well-baby care is preventive care for children up to 24 months old.

About 75 percent of the FEHBP enrollees pay less than $6 per visit for general outpatient care. Slightly more than 99 percent pay $10 per visit or less for such care. Thus, the $6 copay charged to junior enlisted ADDs is fairly close to the standard, but the $12 copay charged to all other Prime enrollees is very high compared to what FEHBP enrollees must pay. The situation is even worse for some types of outpatient care which some FEHBP enrollees can utilize at no cost. For instance, 90 percent of the FEHBP enrollees pay less out of pocket for prenatal care than do junior enlisted ADDs under Prime. Also roughly 80 percent pay less out of pocket for childhood immunizations and well-baby care than do the junior enlisted ADDs. The only outpatient care dimension where Prime does well is X-ray and laboratory services which are fully covered under Prime as ancillary services.

Before concluding that Prime coverage is deficient, one should remember that all visits to military providers are free to Prime enrollees. In an earlier CNA study, we found that about 75 percent of all the Prime outpatient visits in Region 11 in the first 6 months of FY 1998 were to military providers. Thus, although Prime coverage for civilian network outpatient care does not compare favorably with HMO coverage under FEHBP, Prime coverage compares quite favorably after taking account of the free care obtained from military facilities.

Prescription drugs

Prime enrollees may fill prescriptions at military facilities at no cost. Again, this is a level of benefit that no FEHBP plan can better, although about 2 percent of the FEHBP enrollees can fill generic prescriptions for free. If Prime enrollees use civilian network pharmacies, they must pay for part of the cost of the drugs. Active duty dependents must pay $5 per fill and retirees and their dependents must pay $9 per fill. The copay for any fill is the same regardless of whether the fill is for a generic or brand name drug and is good for up to a 30 day supply. Prime enrollees can also use a mail order pharmacy option which allows them to fill prescriptions for up to a 90 day supply of maintenance medications. Active duty dependents must pay $4 and retirees and their dependents must pay $8 per fill. Again, the copays are the same for both generic and brand name drugs.

In table 13 we present the percentage of FEHBP HMO enrollees who have more complete coverage for the purchase of generic and brand name drugs at retail pharmacies. We also consider the purchase of generic and brand name drugs through mail order. Only about 47 percent of the FEHBP enrollees have a mail order option, therefore the percentage of the FEHBP enrollees who have a better mail order option than Prime enrollees is much lower.

Table 13. Comparing prime civilian network cost sharing for prescription drugs with FEHBP HMO cost sharing

	% of FEHBP enrollees with better coverage[a]	
Drug Purchase	**ADDs**	**RETs**
Retail generic	10	97
Retail brand name	3	61
Mail order generic	2	28
Mail order brand name	2	7

a. Note that we are comparing FEHBP with the Prime civilian network cost sharing only.

The results here indicate that even without the ability to get free prescription drugs at military facilities, active duty dependents enrolled in Prime have very a good pharmacy benefit. Only 10 percent of the FEHBP HMO enrollees pay a lower copay for generic drugs at retail

pharmacies. Actually, a majority of the FEHBP enrollees (about 71 percent) pay $5 for retail generic drugs, which is exactly what the active duty dependents pay. Also, only a small fraction of the FEHBP enrollees pay less for brand name drugs. The mail order pharmacy benefit is also very rich in comparison to the benefit FEHBP enrollees get.

On the other hand, the $9 copay which retirees and their dependents must may per prescription at retail pharmacies is a little high compared to what FEHBP HMO enrollees pay. When one considers that 80 percent of the FEHBP enrollees pay $5 or less for generic fills at retail pharmacies, the $9 copay seems particularly out of line. Paying $9 per fill for brand name drugs is not such a bad deal, as only about 61 percent of the FEHBP enrollees get a better deal. In this case this means that about 39 percent do worse than retirees and their dependents enrolled in Prime. Again the mail order benefit is very valuable as far fewer FEHBP enrollees have better mail order coverage.

Inpatient care

Prime enrollees may receive all medically necessary inpatient care from military facilities for no charge. If a Prime enrollee is admitted to a civilian network facility, the enrollee must pay an $11 per day or $25 per admission copay, whichever is higher. Ninety seven percent of the FEHBP HMO enrollees face no out-of-pocket costs for medically necessary inpatient care. Among the remaining 3 percent, most pay per admission copays of $100 to $275. One plan, QualMed in Washington state (6,675 enrollees) charges a copay of $100 per day. Generally, the coverage for inpatient care received from network providers under Prime is not as rich as the coverage almost all of the FEHBP enrollees get. Still, the copays charged under Prime are nominal and certainly could not be construed as a barrier to access to care. Also, DOD has designed the Prime program so that most inpatient care received by Prime enrollees is provided by military facilities.

Outpatient mental health/substance abuse

Both outpatient and inpatient mental health coverage are fairly complicated. We look here at outpatient mental health coverage. Two parameters can affect the richness of mental health coverage. First,

how many mental health visits are covered under the plan. Some plans place no limits on the number of visits an enrollee can have, while some place very stringent limits on this number. Second, how much does the plan expect the enrollee to pay per covered visit. Some plans provide mental health visits at no charge, while other charge either a set copay (of $5 up to $35 per visit) or expect the enrollee to pay for a certain percentage of the cost. Also, the copay can change as the enrollee has more and more covered visits. For instance, a plan may cover the first five visits fully, but then expect the enrollee to pay a copay of $10 for each of the next 15 visits and then pay a copay of $25 for each additional visit.

Because this dimension of coverage is so complicated, we created three different levels of utilization to determine how out of pocket costs under Prime would compare with costs under FEHBP at each level of utilization. The three levels of utilization are as follows:

— monthly visits (12 per year),

— biweekly visits (26 per year), and

— weekly visits (52 per year).

Prime enrollees who receive mental health treatment from military providers need pay nothing for this care. If they receive mental health care from network providers they must pay copays. Junior enlisted active duty dependents must pay $10 per visit, all other active duty dependents must pay $20 per visit, and retirees and their dependents must pay $25 per visit.[11] This means that junior enlisted ADDs would pay $120 out of pocket annually for monthly visits, $260 for biweekly visits, and $520 for weekly visits. All other ADDS would pay $240 for monthly visits, $520 for biweekly visits, and $1,040 for weekly visits. Finally retirees and their dependents would pay $300 for monthly visits, $650 for biweekly visits, and $1300 for weekly visits.

In table 14, we show the percentage of FEHBP HMO enrollees who have better coverage at each of these three levels of utilization. We

11. These copays are for individual visits. Group visit are typically 40 percent cheaper.

find that at relatively low levels of utilization, the coverage afforded to non-junior enlisted active duty dependents and to retirees and their dependents does not compare favorably with the coverage offered to FEHBP HMO enrollees. This is because the $20 and $25 copays under Prime are relatively high. The junior enlisted active duty dependents do fairly well even at low levels of utilization, because the $10 copay is comparable to the typical FEHBP copays. For heavy users, the Prime coverage is quite good for all classes of beneficiaries. This is so because Prime enrollees are covered for up to two visits per week or 104 per year, whereas many FEHBP HMO enrollees have much more stringent limits on the number of visits they can have. For instance, nearly one-third are limited to at most 30 visits (a majority of these are limited to 20 visits) with an additional one-third limited to 40 visits per year.

Table 14. Comparing Prime Civilian Network Cost Sharing for Outpatient Mental Health Care with FEHBP HMO Cost Sharing

	% of FEHBP enrollees with better coverage[a]		
Level of mental health utilization	**ADDs E1-E4**	**ADDs E5 and up**	**RETs**
Monthly	32	69	79
Biweekly	14	58	66
Weekly	5	10	21

a. Note that we are comparing FEHBP with the Prime civilian network cost sharing only.

Quantifying the benefits—out-of-pocket plus premium costs

The utilization data we use in this section are the same as the data we used in the section on the managed-FFS plans. In this case, the Hay Group calculated how much an individual covered by a particular HMO plan would have to pay out of pocket (OOP) for care for each observation in the database. The calculations were made for TRICARE Prime's civilian network coverage and for a representative blend of private sector HMOs. Therefore, the OOP expenses calculated for TRICARE Prime represent what OOP expenses would be if a Prime enrollee used only the civilian network and did not use the

MTF at all. The blend of private sector HMOs provides a very close approximation of the coverage offered under FEHBP HMO plans.

Results

Again, we find that Prime dominates the FEHBP and private sector HMO plans once the premium cost is included for FEHBP and private sector plans. We find that only about 0.4 percent of the individuals in the private sector claims population would have lower OOP plus premium costs (assuming single coverage) in a representative FEHBP HMO than if they had the Prime coverage offered to a junior enlisted active duty dependent. Only about 1.1 percent would have lower costs in the representative HMO than if they had the coverage that other active duty dependent Prime enrollees have. Finally, about 1.9 percent would have lower costs in the representative HMO than they would have if they had the coverage that DOD retired Prime enrollees have. Again, much of this is driven by the premium differences. Remember that FEHBP enrollees pay on average $541 for single coverage. Active duty dependent Prime enrollees pay nothing and retirees and their dependents only pay $230 for single coverage.[12]

As before, the differences in OOP plus premium payments can be quite substantial. Table 15 shows the annual expenses under two different plans: TRICARE Prime for dependents of active duty ranked E5 and above and the representative FEHBP HMO. Again, we look at average OOP plus premium expenses for different levels of total annual expenses. We find that for all but the last total expense category, TRICARE Prime generates significantly lower payments than the FEHBP HMO. Again this is driven mostly by the premium differences, but even if one ignores these, TRICARE Prime's network coverage compares very favorably.[13] Not counting the $541 premium,

12. The FEHBP enrollees would pay $1,490 for family coverage as opposed to the $460 for family coverage under Prime. But, in our examination of annual expenses, we only examine and quantify the expenses for individuals. Therefore, we assume the premium costs for an individual.

13. Remember that services received at military facilities are free, so one would expect the OOP expenditures for Prime to be much lower than these overall.

premium, the average OOP for the FEHBP HMO is $166, which is the same as the average OOP for Prime beneficiaries. It does appear that Prime becomes more expensive at high levels of total expenditures, due mainly to limitations in covered inpatient mental health services. Overall, TRICARE Prime appears to be a very rich plan, especially given the zero premium costs.

Table 15. Average annual OOP plus premium expenses for AD E-5 and above

Total annual medical expenses	Percentage of population	TRICARE Prime	FEHBP HMO[a]
Under $1,000	53	$29	$590
$1,000 - $4,999	36	$143	$719
$5,000 - $9,999	6	$375	$930
$10,000 - $24,999	3	$363	$959
$25,000 - $49,999	1.5	$971	$1,104
$50,000 or more	0.5	$10,538	$6,878
Total	100	$167	$707

a. Includes the premium of $541.

Some final cost comparisons between the DHP and FEHBP

It was beyond the scope of this study to undertake a complete analysis of the differences in cost to DOD for the CONUS care of patients under the DHP and to the federal government for FEHBP.[14] We can, however, estimate what the total costs are to each governmental agency and the resulting cost per user. For FEHBP, much of the cost can be obtained by simply adding together the premiums paid by the government (as the employer) and the beneficary.

14. In [1], we calculated the total cost of providing care to DOD beneficiaries and compared that with the cost of a self-only premium for one specific plan (the Kaiser Permanente mid-Atlantic plan). We recognized that this specific plan was not entirely representative of the entire FEHB program, but at the time of that study we had less information on the program and it did serve as a proxy.

For the DHP, we calculated cost for 1998 through 2000, the latter being a projection of funding in the current year.[15] We present our estimates of the costs for the years 1998, 1999, and a projection for 2000 in table 16. We've estimated the premium contributions of DOD beneficiaries (i.e., retirees who joined Prime) and from the last section, an average OOP for each plan.[16] These OOP costs are for active duty dependents and retirees under 65 and their dependents.

The total cost of FEHBP includes the government share of premiums, an estimate of the administrative overhead of running the program, and an average OOP for government beneficiaries. For DOD, there are the premium costs for the under 65 retirees (we simply multiplied the enrollment values by $230 per enrollee) and their associated estimate of the OOP costs.

The table also shows the estimated number of users of both plans (i.e., the DHP and FEHBP). This is actually more of a problem for FEHBP, because OPM typically tracks the number of plans, not all users. But, OPM provided an estimate for 1998 that we then used to estimate users for 1999 and 2000. From the numbers on the total cost and the number of users, we could then determine the cost per user of each plan, which we show in figure 1. In 1998, the estimated values are close, within a few dollars of each other. In fact, we estimate the DHP was a little more than the average for FEHBP, by about $19 per user. But, while FEHBP experienced slow growth from 1994 through 1997 (according to OPM, the growth rates were -3.8 percent, -0.26

15. The cost of the DHP is essentially made up of direct patient care in CONUS (including purchased care under the managed care support contracts), military personnel (MILPERS), base operations, and funding for several of the overhead accounts (e.g., TRICARE management and information management).

16. Our estimate of OOP costs were for 1999. To determine the other two years OOP values, we assumed first for FEHBP, that these cost would grow at the same rate as did premium costs in 1998 or 2000. For DHP beneficiaries, we used the assumed DOD health care inflation rate, which is about 2.5 percent in each year.

percent, and 1.65 percent, respectively), health care costs are now accelerating. They experienced an increase from 1997 to 1998 of 7 percent, from 1998 to 1999 of 9.4 percent, and expect 1999 to 2000 to grow by 9.3 percent. The figure reflects these growth rates. On the other hand, our projections of cost growth in the DHP from 1998 to 1999 and 1999 to 2000 are 1.8 percent and 3.9 percent, respectively.

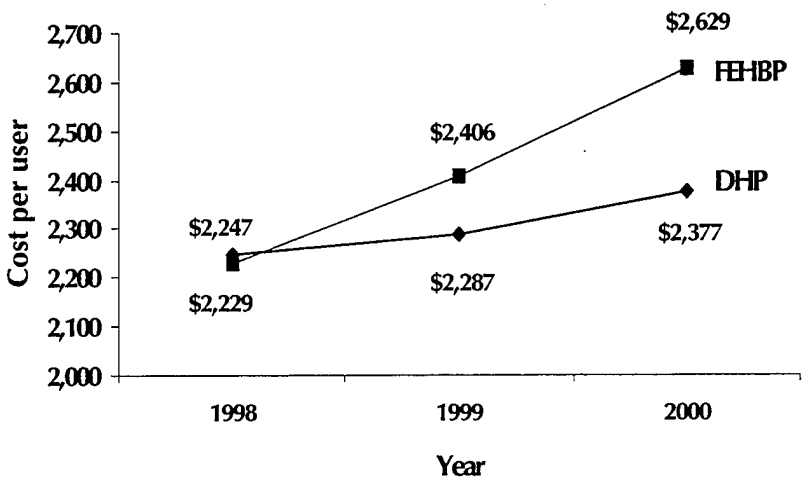
Table 16. Estimated costs and users of the DHP and FEHBP, 1998-2000

Cost (in billions of dollars)	1998	1999	2000 (projected)
DHP			
To DOD	11.27	11.33	11.77
To DOD beneficiaries			
Premium costs	0.16	0.18	0.18
OOP costs	0.68	0.70	0.72
Total cost (DOD + beneficiary)	12.11	12.21	12.67
Number of users (in millions)	5.39	5.36	5.39
FEHBP			
To OPM[a]	11.98	13.25	14.46
To OPM beneficiaries			
Premium costs	4.62	4.93	5.40
OOP costs	2.57	2.75	3.01
Total cost (OPM + beneficiary)	19.17	20.93	22.87
Number of users (in millions)	8.6[b]	8.7	8.7

a. This number includes $20 million in administrative costs of FEHBP, based on a phone conversation with an actuary at OPM. It's a crude estimate, but clearly does not affect the results in a substantive manner.

b. This number is an estimate by OPM for 1998; we then applied the same ratio of total beneficiaries to plans for 1999 and 2000.

Figure 1. Comparing the total cost per user between the DHP and FEHBP



Calculating the value of benefits paid to employees

Approach to benefit analysis

In this section, we quantify the dollar value of benefits paid to active duty personnel and their counterparts in the federal civilian workforce or on private payrolls. As we've already mentioned, the reason to examine all benefits is that the total compensation paid to an employee consists of a "package." Any one element, such as the health care benefit, is only meaningful when the total over all elements is evaluated and compared across compensation alternatives. Therefore, determining whether DOD's health care benefit is better or worse than that offered elsewhere must take into account the value of other benefits offered to its military personnel.

It's also important to point out that the findings we present here should not be taken to imply anything about whether the active duty soldier, sailor, airman, or marine is under or over paid when compared to a civil service or private sector employee. In many, if not all, cases it is very difficult to compare military personnel with their civilian or public counterpart in terms of a specific job. Active duty personnel are in uniform ultimately to protect and serve their country in time of war or conflict. They work as mechanics, health care providers, or boiler technicians, but we are not comparing them by job or function. Perhaps the best way to determine if the total compensation package is adequate is by examining the ease of recruiting and retaining them. In this analysis, we focus instead on the dollar value of the package of benefits associated with a given salary level. We do the same thing for civil servants and private sector workers.

List of benefits studied

In this section, we discuss which benefits were examined and how the benefit values were calculated for purposes of this analysis. Determining the value of benefits for all three sectors must be done carefully and be based on sound actuarial values. Therefore, CNA consulted with the Hay Group, a well known benefits consulting firm, who performed the actual calculations for each benefit.[17]

The benefit comparisons cover what CNA and the Hay Group considered major benefits, i.e., those that make up the largest part of any employee benefits package. The Hay Group then developed comparisons of the value of benefits provided to military personnel and their families with the value of the benefit programs provided to federal civilian employees and with private sector employees in a selected comparator group of 50 medium to large firms that is shown in appendix B. The list of private sector firms was drawn from the 1999 Hay Benefits Report (HBR) that contains benefit program designs for more than 1,000 medium to large organizations representing all industrial sectors and geographic regions in the U.S.

Table 17 presents the benefits that CNA and the Hay Group examined. The benefit programs were organized into these general categories for purposes of comparison. In most cases, the benefits were fairly similar to what is offered by the federal government to its employees or by civilian firms to theirs. But, as described in the last section, the DOD health care benefit is significantly different in many respects from what's typically offered under FEHBP or private sector plans. Some beneficiaries can use the MTF on a space-available basis, including for pharmacy services, at no cost (including no premium cost). There are also no premiums for Standard or Extra.

17. A similar type of analysis was undertaken by the Congressional Budget Office (CBO) in which they compared the level of benefits between federal workers and private sector firms [2]. CBO relied on another benefits consulting firm, Watson, Wyatt & Company, to calculate the dollar values of benefits studied. When appropriate, we'll discuss where the two firms respective approaches to calculating values differed.

Table 17. Military benefits

Benefits category	Military benefit
Life insurance	* Servicemen's Group Life Insurance (SGLI)
	* Veteran's Group Life Insurance (VGLI)
	* Dependency and Indemnity Compensation (DIC)
	* Death gratuity
	* Burial allowance
	* Social Security death benefit
	* Unused leave
Disability income	* Short-term disability (full pay during recovery from injury or illness during hospitalization)
	* Long-term disability (temporary and permanent disability retirement)
Health benefits	* MTF for active duty, dependents and retirees
	* TRICARE for active duty family members, retirees, and retiree family members
	* Dental insurance for ADFM, retirees and retiree family members
Pension benefits	* Military retirement system (final basic pay system, High-3 system, Redux)
	* Survivor benefit plan (SBP)
Capital accumulation plans	* None
Holidays and vacations	* 10 Federal holidays
	* Annual leave
Statutory benefits	* Social security
	* Workmen's compensation
	* Unemployment compensation
Executive perquisites	* None
Other benefits	* Morale, welfare, and recreation (MWR) facilities
	* Personal legal services
	* Education benefits
	* Child care
	* Commission and exchanges
	* Family support centers (FSCs)

Another example of a major benefit difference concerns the retirement benefit. The DOD retirement system allows for vesting only after a fairly significant number of years (for most active duty personnel, after 20 years). However, many retire at a much younger age than their federal or private sector counterparts. The annual amount may be less than under other systems, but DOD retirees collect it for many more years. Whether the expected lifetime value is more or less than federal or private sector pensions is a finding we will present shortly.

Below, we provide a brief description of each benefit studied. We'll provide additional details of assumptions underlying the computations in appendix C.

Life insurance benefits

For the military, this category includes Servicemen's Group Life Insurance (SGLI), the DOD death gratuity benefit, the Survivor Benefit Plan and Dependency and Indemnity Compensation (DIC). For the Federal government, this category includes the Federal Employees Group Life Insurance (FEGLI) plus death benefits payable from either the Civil Service Retirement System (CSRS) or the Federal Employees Retirement System (FERS). For the private sector, life insurance benefits include basic, supplemental, and dependent group life insurance as well as accidental death and dismemberment coverage and any other life insurance benefits provided by the organizations in the private sector comparator group.

Disability benefits

This category includes both short term (sick leave) and long term disability programs. For the military, the disability benefits included the disability retirement provisions of the military retirement system. Also valued was the practice of paid time off for military personnel during illnesses and hospitalization. For the Federal sector, the standard sick leave program and the disability retirement provisions of the Federal Employees Retirement System (FERS) were included. For the private sector, we included the short term disability or sick leave programs and the long term disability programs for the organizations in the comparator group.

Health care benefits

Health care benefits include medical, dental and vision coverages. Several combinations of programs were valued for the military. In each combination, the military member was assumed to receive all care free of charge in the MTF and dependents were assumed to receive care through one of the TRICARE system options—Prime, Extra or Standard—or through space-available care.[18] An important point here is that we valued the benefit based on the actual usage of each system option. The specific values we used are provided in appendix C.[19]

The last section described in detail the federal employees health care benefits, provided under the FEHBP. For this analysis, the five plans with the largest enrollments were selected and valued. The composite FEHBP benefit value was the weighted average of the five plans with weights based on their enrollment (the five plans and their respective enrollment are shown in appendix C). The private sector health benefit value was based on the average of the 50 organizations in the comparator group.

Retiree health care benefits

An important part of the health care benefit pertains to the benefit offered to retired beneficiaries. In the private sector, many firms that offer a fairly extensive health care benefit to working employees don't provide any benefit to those workers who retire. Of the 50 firms in the CNA/Hay comparator group, about 85 percent offer health care benefits to their retirees. This turns out to be a higher percentage than in the private sector as a whole. We didn't choose these firms for that reason, but rather because of their relative size, which we felt would

18. Even at the MTF, some services such as cosmetic surgery may include a small charge, but we ignored those charges in our analysis.

19. This may seem at odds with the statement that if a benefit were offered, we assumed the beneficary took advantage of it. But, the DOD health care system offers several options—e.g., using the MTF depends a lot on proximity to it. Therefore, we felt it was necessary to introduce what the beneficary actually used in the computation of the health care value.

represent firms that are roughly comparable to the federal government or military (not as large, but large compared to other private sector firms).

FEHBP offers much the same benefit at the same cost to retired civil service workers who qualify (specifically, they had to have been working for the federal government and enrolled in FEHBP for the past five years before they retire and they must sign up when they retire—they cannot choose to sign up at a later date) as for current workers. One reason that the cost is held down when compared to its younger workers is that those retirees over 65 would have Medicare as their primary payer. FEHBP then pays for expenses that Medicare does not. The combination means that the OOP costs to federal retirees over 65 is quite low.

For DOD retirees, the health care benefit is complicated. If they are under 65, they qualify for Prime, space-available care, or can send bills to the managed care support contractor under Standard or Extra, depending on whether they used the network or not. If they are over 65, the only benefits they can currently receive (not counting certain demonstration programs or local enrollment in Prime) is space-available care at the MTF or a pharmacy benefit for those in sites affected by base realignment and closure (BRAC) of local MTFs.

Retirement benefits

Retirement benefits include traditional pension plans as well as capital accumulation plans. For the military, table 18 presents the three plans we examined. Retirement provisions depend on the date the individual first became a member of the uniformed services.

Table 18. Military retirement programs through the years

Program	Covering uniformed service personnel entering active duty
Final basic pay system	Prior to Sep 8, 1980
High-3 system	On or after Sep. 8, 1980 and prior to Aug. 1, 1986
Redux	On or after Aug. 1, 1986

The military does not presently have a capital accumulation plan. OPM, through its Thrift Saving Plan (TSP), and many private sector firms offer their employees this type of benefit. This may change for the military, however. The National Defense Authorization Act for FY2000 includes several provisions that would change the military retirement system. First, the Act would allow current members covered by Redux, upon reaching their 15th anniversary of service, to elect either to remain under Redux and receive a $30,000 lump sum payment, or to convert to the High-3 system. The Act also includes a contingent authority for military members to participate in the TSP that is available to Federal civilian employees. The authority would become effective only upon passage of legislation offsetting the loss in tax revenues resulting from military tax-deferred contributions to the TSP. This analysis does not include a capital accumulation plan for the military. In this analysis, we assumed that military members entering active service under Redux provisions would exercise the option to receive retirement coverage under the High-3 system.

Federal civilian employees were assumed to be participating in either the Civil Service Retirement System (CSRS) or the Federal Employees Retirement System (FERS) as illustrated in table 19. These employees are also eligible to participate in the TSP.

Table 19. Federal civilian retirement program

Program	Period of applicability
Civil Service Retirement System (CSRS)	Prior to January 1, 1984
Federal Employees Retirement System (FERS)	On or after January 1, 1984

Private sector retirement benefits included the pension and capital accumulation plans offered by the comparator organizations. Also included were supplemental non-qualified retirement plans that may be available for senior managers.

Holidays and vacations

Holiday benefits for military and Federal government employees were the standard ten Federal holidays during the year. The Federal

vacation schedule which increases annual leave according to years of service was incorporated. The military vacation schedule of 30 days per year was modified because all days away from the duty station, even weekends, are counted as leave days. Consequently, the 30 days is equivalent to approximately 20 days using the private sector standard of counting only weekdays as vacation days. Holidays and vacations for the private sector was the average of the practices of the 50 comparators.

Statutory benefits

Three statutory benefits, Social Security, Workmen's Compensation and Unemployment Compensation were included for all cases except Federal CSRS participants. Only the small percentage of CSRS employees who have had a break in service of less than one year participate in both the CSRS-Offset retirement program and Social Security. The Social Security wage credit given to military personnel in recognition of the non-taxable nature of allowances was factored into the value of the Social Security benefit for military personnel.

Executive perquisites

Executive perquisites include benefits such as employer-paid memberships in country, athletic and luncheon clubs, employer-provided cars, apartments, personal financial counseling and legal services, and executive flexible benefit plans. Note, executive retirement programs are included in the retirement benefit category. There are no equivalent benefits for military and Federal civilian employees.

Other benefits

This is a "miscellaneous" category that includes benefit programs that do not fit logically into any of the other categories. For the military, it includes a number of benefits[20] that are peculiar to military service such as commissary and exchange discounts, use of on-station legal services, Morale, Welfare and Recreation (MWR) facilities, certain

20. Appendix C provides details on the military benefits included in the Other benefits category.

specific education programs, and child-care services. For Federal civilian and private sector employees, this category includes benefits such as flexible spending accounts, child-care facilities, food cafeterias, and tuition assistance programs.

In some cases, the benefits are fairly unique. As we'll show, there may be some educational benefits offered by the federal government or private sector firms, but the cost to the employer is a fraction of what DOD pays for its educational benefits.

Method

The benefit values in this report are based on the average cost of providing the benefits to a group of employees having the same demographic composition and mortality experience as the armed forces. Valuations take into account the expected frequency and duration of use of a benefit. If an individual has the opportunity to elect certain benefits, the values assume the benefit is elected. For example, if an employee is eligible to participate in a capital accumulation plan, we assume the employee participates and makes a contribution necessary to receive the maximum matching contribution from the employer.

Benefit plans are complex and multi-faceted. Consequently, any comparison of several, almost invariably dissimilar, benefit programs is extremely difficult without a single common denominator or yardstick on which all plans can be measured.

Cost is clearly the most direct common denominator. All benefits have a cost and if a dollar value could be assigned to each program in the study, almost limitless comparisons are possible. Actual cost is clearly of vital concern to an employer, but it has the following significant shortcomings that render it unsuitable for most benefit plan comparison studies.

- Actual costs are often not available. This can be true either because of the difficulty in developing the desired figures, or because of a conscious decision of the employer not to share such data.

- Funding, financing, and accounting techniques differ widely among firms. Consequently, the actual cost of two identical benefit programs can differ significantly for a number of reasons in no way related to the benefit design.

- The employee "mix" can vary substantially from one employer to another. That is, the distribution of employees by age, sex, length of service, salary level, and relative health is rarely similar from one organization to another. Therefore, even if the same benefit and financing techniques were used, the actual cost could, and probably would, be different.

- A firm's bargaining power and skill as a benefits buyer is yet another variable making actual cost unreliable as a tool for measuring relative value. Because of differences in negotiating abilities, a poor plan in one environment can cost more than a superior plan in another.

For these reasons, Hay does not use actual costs in studies such as this one when comparing benefit programs across employers. The Hay Group has developed a technique of common cost that permits the assignment of *dollar values*, a common yardstick, without the aforementioned problems associated with actual costs.

The key to the Hay "common cost" approach is the use of a single method for all plans being valued. All plans in the study are, in effect, "purchased" for the military population from the same source using the same financing techniques and the same economic and actuarial assumptions. The "providers" are a hypothetical group of insurance companies and/or trustees who are "selling" coverage using the same average group rates, actuarial assumptions and experience ratings for all plans in the study. The result is an actuarially derived "common cost" for each plan, calculated as a percentage of salary and displayed in this study as an annual dollar value for the individual cases. For health plans, the value is adjusted to reflect the type of delivery system; that is, traditional fee-for-service, PPO, Point of Service (POS) plan, or HMO.

The common costs (or Benefit Value Comparisons – BVCs) presented in this study represent the average cost of purchasing the

military, Federal civilian, and private sector benefit programs for an employee population exhibiting the same characteristics as the military forces. Under these assumptions, differences in benefit values among the programs are solely the result of differences in plan designs. All effects resulting from demographics, funding methods, and economic and actuarial assumptions have been eliminated.

Many benefit payment amounts are computed as a multiple of salary. For example, the amount received from each of the military retirement systems is directly related to salary (or Regular Military Compensation). For these kinds of benefits, the common cost is determined as a percentage of salary and would then increase as salary increases. Other benefits, such as health care, are unrelated to salary. The common cost for these benefits remains relatively fixed at all salary levels.[21]

In the study, we present benefit comparisons for several hypothetical enlisted and officer members at different points in their careers. Comparisons are made with Federal and private sector employees at equivalent salary levels. The benefit values represent the average cost of purchasing each of the benefit programs for an individual at that salary level.

It is important to recognize that the benefit values should not be interpreted as the economic or perceived values to the specific individuals. For instance, health insurance has little actual or perceived value for a young, healthy single employee, but the actual and perceived values are much higher than the average BVC for a married employee with a spouse or child having a severe medical problem. The variation in actual and perceived value is greatest for the retirement system. A young military member who does not plan to stay

21. The health care dollar values shown in the CBO report differ by the salary levels (and age and tenure characteristics) of the federal workers they use to compare to private sector workers. Clearly, the cost is being valued at the expected health care utilization and costs that would be faced by that worker. Here, as described, above, we assume average values that will not change as the individual ages and would probably require increasing amounts of health care.

beyond the first period of obligated service will receive no value from the retirement system. However, a member with 18 years of service will receive a benefit that is more than the average BVC simply by staying to 20 years.

In summary, it is important to recognize what the BVC value for a benefit is and to understand what it is not. The BVC is an average cost of benefits for all employees. It is not the economic value for any individual member and it is even less the perceived value of any individual member. The BVCs provide a quantitative measure of the relative cost of the overall benefits package. The use of the analysis should be tempered with consideration of the economic and perceived values for the individuals being considered.

Findings

Defining comparison groups and pay

We've shown the benefits that we calculated dollar values for, but we now need to discuss which specific groups of military, federal civilian, and private sector workers were examined. Then, we need to define what level of pay or salary was used as a starting point.

First, concerning who was compared, we chose 4 different paygrades within the military sector for both enlisted personnel and officers. For the enlisted, we began with a new recruit, essentially an E-1 with less than four months of tenure. We then chose an E-4, an E-6, and E-8. Based on expected continuation rates, the most senior enlisted paygrade personnel examined here, the E-8, was assumed to have about 21 years in the military and to be about 40 years of age. For officers, we began with an O-3 and then chose an O-4, an O-6, and an O-10. These eight categories then spanned the entire range of military personnel, from the lowest and newest enlistee to the most senior officers in the military.

Next, we had to define and choose an appropriate level of salary or pay on which to base the comparison. For active duty, we began with their regular military compensation (RMC). RMC is the sum of basic pay, quarters allowance, and subsistence. It also includes the imputation of

the tax advantage provided to service members given that the quarters allowance and subsistence are nontaxable. Different paygrades are, not surprisingly, associated with different levels of RMC.

Given these eight different paygrades and their associated RMC, the Hay Group then chose their counterparts in the federal civilian workforce and private sector firms. The "comparable" worker was one with similar salary levels, age, and tenure on the job. The final step was to then calculate the dollar value of benefits paid (the BVCs described earlier) to each of the military personnel and their counterparts in the federal and private-sector workforce.

Results for enlisted personnel

We now present the findings for each benefit as well as total values for the entire package. Once again, we must reiterate that these values don't imply anything about whether any of these workers are underpaid or overpaid. Military personnel face risks and hardships that are quite different from their federal civilian and private sector counterparts. Nonetheless, we believe this section helps place in context the value of the health care benefit that each employer (i.e., DOD, OPM, or private firm) contributes towards ts workers.

Table 20 shows the values calculated for the enlisted personnel and their comparison groups in the federal and private sector workforce. The salaries for the four enlisted paygrades we're using as examples and their federal and private counterparts range from just under $21,000 to a little over $51,000.

Non-health care benefits

Generally, the military benefits are relatively high for most benefits when compared to the other groups. Life insurance benefits are a bit lower than in the private sector but almost double that paid to federal civilians. The values for disability are fairly close with the military always slightly higher than the other two groups. The values are also fairly close for holiday/vacation benefits, with the federal workforce getting the greatest benefit, although the difference is larger (between about $250 and $550, depending on the paygrade studied) when compared to the private sector workers. Finally, the statutory

benefits—Social Security and Medicare—are less for DOD than for federal workers or private sector workers, with the exception being the federal worker under CSRS (in which case, the worker wasn't required to participate early in his/her career).

Table 20. Comparing the benefits of military, federal civilian, and private sector workers (enlisted personnel as base group)

Military grade	E-1	E-4	E-6	E-8
Service (years)	< 4 months	4	10	21
Age	19	23	29	40
Salary (RMC)	$20,672	$28,765	$37,972	$51,377
Military retirement system	Hi-3	Hi-3	Hi-3	Final
Federal counterpart (grade/step)	GS-3/5	GS-6/5	GS-8/6	GS-11/8
Federal retirement system	FERS	FERS	FERS	CSRS
Life insurance				
Military	154	159	166	174
Federal civilian	42	58	77	103
Private sector	105	141	182	241
Disability				
Military	512	711	940	1,271
Federal civilian	359	510	683	934
Private sector	417	580	769	1,045
Health care				
Military	5,762	5,762	5,762	5,762
Federal civilian	3,368	3,368	3,368	3,368
Private sector	3,819	3,819	3,819	3,825
Retiree health care				
Military	379	379	379	379
Federal civilian	811	811	811	811
Private sector	661	661	661	661
Health care (total)				
Military	6,141	6,141	6,141	6,141
Federal civilian	4,179	4,179	4,179	4,179
Private sector	4,480	4,480	4,480	4,486

Table 20. Comparing the benefits of military, federal civilian, and private sector workers (enlisted personnel as base group) (continued)

Military grade	E-1	E-4	E-6	E-8
Pension plan				
Military	4,734	6,587	8,696	13,086
Federal civilian	2,679	3,728	4,921	11,848
Private sector	1,635	2,281	3,134	4,424
Capital accumulation				
Military	0	0	0	0
Federal civilian	959	1,335	1,762	72
Private sector	914	1,260	1,653	2,251
Total retirement (Pension + CAP)				
Military	4,734	6,587	8,696	13,086
Federal civilian	3,638	5,063	6,683	11,920
Private sector	2,549	3,541	4,787	6,675
Holiday/vacation				
Military	2,325	3,234	4,269	5,777
Federal civilian	2,400	3,340	4,410	5,967
Private sector	2,164	3,011	3,979	5,392
Statutory				
Military	1,383	1,925	2,409	3,307
Federal civilian	2,036	2,656	3,360	1,200
Private sector	2,036	2,656	3,360	4,385
Total benefits excluding other				
Military	15,249	18,757	22,621	29,756
Federal civilian	12,654	15,806	19,392	24,303
Private sector	11,751	14,409	17,557	22,340
Other benefits				
Military	1,506	2,067	2,195	2,639
Federal civilian	120	120	120	120
Private sector	571	571	571	553
Total benefits with other				
Military	16,755	20,824	24,816	32,395
Federal civilian	12,774	15,926	19,512	24,423
Private sector	12,322	14,980	18,128	22,893

The list of benefits we included under *other benefits* include several military-specific benefits, including legal assistance, MWR, child-care, and tuition assistance benefits. The federal government and private sector firms provide benefits like these to some extent, but the Hay Group's estimated benefit values show that DOD offers a much richer benefit here. We recognize that evaluating several of these benefits is somewhat problematic, given that education and training is often key to attracting young men and women into the armed forces. We attempted to separate the truly educational benefit that can be used after the military career in another job from what DOD requires for its personnel to do the job. Any such assumed split is likely to be controversial. Determining the most appropriate values could be an entire study by itself. We hope these values are examined and modified if others wish to do so.

For most workers, the largest benefit in dollar terms is the retirement or pension benefit (the exception is the E-1 and its equivalent). There are two parts to this benefit, the pension plan and a capital accumulation plan. (As we explained, the military is not as yet provided with this type of benefit.) Under CSRS, which only affects the older and longest tenured federal workers, the amount required to fund the capital accumulation is very small because they receive no employer contribution. The pension component for this plan is much more generous, however.

Even when the two parts are added together (i.e., pension and capital accumulation), military personnel receive a significantly higher benefit than the federal civilian or private sector comparison group. The federal worker, under CSRS, does receive a total retirement benefit that is fairly close to the benefit value for the enlisted personnel—almost $12,000 versus the $13,000 annual benefit cost for the E-8. But, for those under the more recent FERS, the relative valuation is lower. Furthermore, the value of the benefit paid out to support the private sector retirement benefit is much lower than the values for either the military or federal worker, except at the highest salary level. For those earning roughly the same as an O-10, the private sector pension BVC is higher than the federal value and much closer to the military value than at lower salary levels. This results from the value of supplemental

non-qualified retirement plans that private employers provide to their executives.

The health care benefit

The next largest benefit, in terms of the dollar values, is that for health care. We split the health care benefit into the value for "current" workers (those in the military, federal, or private workforce today) and the value when they retire. The results reinforce the findings in the last section that showed lower OOP costs for the beneficiary. We should point out that because of the way benefit values were developed, we assume that the cost of providing specific health care services is the same for DOD and the private health care market (which includes FEHBP), notwithstanding our comparison in the last section between cost per user in the DHP and FEHBP. Here, we were not trying to determine who delivers health care in the most efficient manner. We are examining which employers—DOD, the federal government, or private sector firms—paid more of the total bill.

The results clearly show that the share paid by DOD is substantially higher than the share provided by either the federal government, through OPM, or civilian employers. As we said before, the assumptions made by the Hay Group in their calculations mean that the value doesn't change with paygrade or age. Given that, the DOD benefit is valued at $5,762 per year compared to $3,368 for federal workers and $3,819 for the civilian workers in the 50 firm comparator group.

Why is the amount so low under FEHBP? As we've seen, there are many facets to the health care plan, but two important ones are the relatively smaller share of premiums paid by OPM and the much smaller dental benefits paid out under FEHBP.

FEHBP does better when retiree health care benefits are included. The retiree benefit under the plan is a good one and is valued at about 25 percent more than the value for retired private sector workers in the 50 firms and more than twice as much as DOD retirees. As we said before, some of the private sector workers—about 15 percent—do not receive health care benefits when they retire. And, of course, the value falls for DOD beneficiaries because they lose some benefits as they reach 65. Other than a fairly limited pharmacy benefit to those in

BRAC sites (which we valued at about $44 per 65+ eligible), the benefit accrues to those who live near an MTF. Given the changing benefit at older ages, its value is about $379, compared with a value under FEHBP of about $811 and in the private sector of about $661.

How much would the benefit be if the over-65 retiree didn't lose eligibility when they reach 65? We can't be sure how they would have sorted themselves out had the benefit not changed, but we could determine the value if they relied on the options within the DHP in the same way as the under-65 retirees. Assuming those percentages as to where they receive their care (see table 42 in appendix C), the value of the retiree benefit would now rise to about $730, which is still below the federal civilian retiree value, but not by much.

Using the $379 DOD retiree value, the value calculated for the total health care benefit is a little more than $6,100 for the enlisted personnel versus just under $4,200 for the federal worker and $4,500 for the private sector worker. Thus, overall DOD provides a fairly rich health care benefit, even though it's clearly not as rich for retirees.

The total value of all benefits

Before turning to the valuations of officer benefits, let's examine the relative values for all benefits. Excluding the other benefits category, the total value is more than $15,000 for the E-1 or about 74 percent of the RMC, and increases to more than $29,000 for the E-8, which is about 58 percent of RMC. The decrease is due to some benefits, including health care, not rising with increases in RMC. Table 21 shows that after adding the other benefits category, the percentage increases to almost 84 percent for the E-1 and to just over 63 percent for the E-8.

Table 21. Percentage of total benefit value compared to RMC or equivalent

Paygrade	DOD	Federal civilian	Private sector
E-1	81	62	60
E-8	63	48	45

The valuation of all benefits (including the other category) for federal workers is about $12,800 for the equivalent to the E-1 and more than $24,400 for the E-8 equivalent. These values represent about 62 percent and 48 percent, respectively, of the salary paid. The benefit values to private sector workers are close to these values, about 60 percent and 45 percent of their salary levels.

Thus, according to the calculations of benefits as shown in the table, DOD provides a higher total benefit value for health care as well as many other benefits that make up the total compensation package. In other words, the higher health benefit is not simply to make up for lower benefits in other areas; the total over all benefits is higher as well.

Results for officers

Table 22 presents the benefit values for officers. The RMC for the four officer categories in our comparison range from about $57,000 for the O-3 to almost $160,000 for the O-10. Many of the same implications hold true for officers as for enlisted. For example, because of the assumptions made in determining the health care benefit, there is no difference in the benefits value across paygrade. In other words, military personnel, whether enlisted or officer, have a total health care benefit equal to about $6,141, which is higher than $4,179 under FEHBP or the $4,480 for private sector employees.

The various non-health-care benefits, although not exactly the same as for enlisted, do show similar patterns. The total retirement benefit values for military officers are still higher, but federal employees under CSRS, which was assumed in the valuation for the two highest federal categories, have values that are close to the military retirement values. As before, the private sector values lag behind either military or federal personnel.

One benefit that was unimportant for enlisted personnel and their equivalents was the category we've labeled executive perquisites. There are values listed only for the private sector. These values are small until the O-6 and O-10 equivalents.

Table 22. Comparing the benefits of military, federal, civilian, and private sector workers (officers as base group)

Military grade	O-3	O-4	O-6	O-10
Service (years)	6	12	22	35
Age	29	35	45	58
Salary (RMC)	$57,064	$72,230	$103,044	$159,943
Military retirement system	Hi-3	Hi-3	Final	Final
Federal counterpart (grade/step)	GS-12/5	GS-13/7	GS-15/8	Level III
Federal retirement system	FERS	FERS	CSRS	CSRS
Life insurance				
Military	177	186	205	240
Federal civilian	115	145	207	321
Private sector	266	335	504	851
Disability				
Military	1,412	1,787	2,550	3,960
Federal civilian	1,042	1,331	1,932	3,042
Private sector	1,163	1,483	2,162	3,484
Health care				
Military	5,762	5,762	5,762	5,762
Federal civilian	3,368	3,368	3,368	3,368
Private sector	3,838	3,855	3,902	3,957
Retiree health care				
Military	379	379	379	379
Federal civilian	811	811	811	811
Private sector	660	660	660	638
Health care (total)				
Military	6,141	6,141	6,141	6,141
Federal civilian	4,179	4,179	4,179	4,179
Private sector	4,498	4,515	4,562	4,595
Pension plan				
Military	13,068	16,541	26,245	40,737
Federal civilian	7,395	9,361	23,762	36,883
Private sector	4,981	7,051	12,540	30,849

Table 22. Comparing the benefits of military, federal, civilian, and private sector workers (officers as base group) (continued)

Military grade	O-3	O-4	O-6	O-10
Capital accumulation				
Military	0	0	0	0
Federal civilian	2,648	3,351	143	215
Private sector	2,497	3,150	4,475	7,228
Total retirement (Pension + CAP)				
Military	13,068	16,541	26,245	40,737
Federal civilian	10,043	12,712	23,905	37,098
Private sector	7,478	10,201	17,015	38,077
Holiday/vacation				
Military	6,416	8,121	11,586	17,983
Federal civilian	6,627	8,388	11,967	18,576
Private sector	6,014	7,661	11,174	18,048
Executive perquisites				
Military	0	0	0	0
Federal civilian	0	0	0	0
Private sector	259	674	1,351	4,726
Statutory				
Military	3,766	4,627	6,319	7,067
Federal civilian	4,820	5,981	1,949	2,774
Private sector	4,820	5,981	6,674	7,499
Total benefits excluding other				
Military	30,980	37,403	53,046	76,128
Federal civilian	26,826	32,736	44,139	65,990
Private sector	24,498	30,850	43,442	77,280
Other benefits				
Military	3,514	3,899	4,352	5,209
Federal civilian	120	120	120	120
Private sector	553	537	525	491
Total benefits with other				
Military	34,494	41,302	57,398	81,337
Federal civilian	26,946	32,856	44,259	66,110
Private sector	25,051	31,387	43,967	77,771

Perhaps the largest disparity occurs for the *other* benefits category. Many of the benefits in this category, such as MWR and FSC, were assumed to be the same as for enlisted. The main differences in value compared to enlisted personnel are due to higher utilization for legal assistance and the education component of the benefit. As shown in appendix C, the assumptions made for use of the legal assistance benefit place a value for the O-6 at $675 and for the O-10 at $1,080. These values are much higher than for junior officers or enlisted. That's one reason for the higher valuation for the other benefit.

More importantly, the largest valuation is associated with education. Here, we felt it was appropriate to include benefits paid for undergraduate and graduate education. These would include the service academies, ROTC, and the Naval Post graduate School. DOD receives some value for paying young men and women to attend these institutions or join ROTC. They may indeed make them better at performing their job for their respective service. But, receiving an undergraduate or graduate degree has great value for future positions outside of the service. As explained in the appendix, we calculated the value associated with the "pure" educational aspect of this benefit and included this estimate in the other category.

Table 23 shows that the total value of all benefits as a percentage of RMC is higher for military officers than for their civilian counterparts. CNA and the Hay Group derived a total value of about $34,000 for the O-3, or about 60 percent of his RMC and $81,000 for the O-10, or about 51 percent of his RMC. The former value compares to the $27,000 for the federal worker whose pay is the same as an O-3. The percentage for this worker is about 47 percent of his pay, and the $66,000 that an O-10 level equivalent receives is about 41 of his pay. Interestingly, the private sector worker earning this highest level of pay, close to $160,000, would receive higher benefit values than the federal Level III employee. The higher level of benefits to private sector employees is about $11,600, of which more than $4,700 is due to executive perquisites. Both the federal civilian and private sector worker still receive a lower value of benefits than the military officer.

Table 23. Percentage of total benefit value compared to RMC or equivalent for military officers

Paygrade	DOD	Federal civilian	Private sector
O-3	60	47	44
O-10	51	41	49

In summary, DOD provides both a higher health care benefit and a higher total benefits value, both in terms of the Hay Group's common cost comparison. Our goal has not been to pass judgment concerning whether any benefit paid is too high or too low, but simply to determine what DOD pays and how that compares to what other employers pay.

A final thought on the calculated health care benefit value

We might expect that the product of the health care value of $6,141 and the number of current active duty personnel (more than 1.5 million) would lead to the roughly $11.8-billion cost to DOD for the DHP shown in an earlier section. The resulting benefit value calculation, however, would be closer to $9.5 billion. One reason may be that the benefit values for all three groups were obtained by valuing the health care benefit using costs for an employer in the private health care sector. Any relative inefficiencies inherent in the DOD system would tend to increase the total cost of providing the same benefit.

Probably a more important reason for the difference is that today's actual costs, particularly for retirees, are related to the *past* size of the active duty forces, not the size today. The retirees being supported today were on active duty in the past. During many of those years, the number on active duty was greater than 2 million. Therefore, making the very strong assumptions of no major increases in life expectancy, health care prices, or the benefits offered to DOD retirees, one would expect that, eventually, the total bill to DOD will fall as the number of retirees falls.

Comparing satisfaction among DHP and FEHBP beneficiaries

In this section, we compare the satisfaction levels of DOD and federal government beneficiaries—current workers and retirees. Thus far, we've found that the health care benefit provided to military personnel should mean they face lower OOP costs than federal or private sector workers. Further, a valuation of the cost of the health care benefit, as well as all benefits, shows that DOD provides a higher level of both health care and all benefits than that offered elsewhere.

Nonetheless, there appears to be the perception that others receive a "better" benefit. For example, many retiree associations call for DOD to offer them FEHBP. Our results thus far show that the benefit value for that part of the health care benefit for retirees is higher under FEHBP than what they currently receive from DOD. But, it does come with a cost—a higher premium than what they pay now for Prime (although, of course, the premium is zero if they use space-available care).

The question we addressed in this section was: do most DOD beneficiaries value the benefit, as expressed in their levels of satisfaction, at roughly the same levels as do beneficiaries under the FEHBP program? Health care may be less costly to DOD beneficiaries, but the value of the benefit may be reduced because it is perceived to have poor quality, access, or service. Are they being realistic in these perceptions; would an alternative such as FEHBP make them more satisfied? We turn to these comparisons next.

The DOD and OPM surveys

Determining the satisfaction of two different groups facing a different set of benefits can be a tricky task. Even within the same survey, it's not always easy to determine the validity of responses to specific

questions. In this case, we made use of two different surveys sent to the current and retired employees of two different organizations, namely, DOD, employer to federal military personnel and OPM, acting as employer (or at least administrator) to federal civilian employees. We relied on the 1997 Health Care Survey of DOD Beneficiaries and the 1997 Consumer Satisfaction Survey conducted for OPM.[22]

Despite the use of two different surveys, we feel there is great value in examining the differences in satisfaction levels between the two populations. Although the format of the two surveys is different, many of the questions, as well as the grading scale of the responses, were similar, if not identical. In addition, surveys of beneficiaries or enrollees are routinely sent out by different health plans and the results used in national surveys of satisfaction of people in different health plans. What's different about our analysis is that we've put the two sets of survey responses together so that we could conduct a statistical analysis of how they compare.

For both surveys, we were fortunate to have studies precede ours that examined the beneficiaries' response to the questions on various elements of satisfaction. For DOD, CNA has performed extensive analysis on beneficiaries' satisfaction levels. In particular, first for region 11 and, more recently, for six new regions that have now been online for at least one year, CNA has examined how satisfaction has changed over time with the introduction of Prime (see [3] for the most recent report). In the case of the OPM survey, the Gallup Organization performed services related to the design and conduct of the survey in 1997 and then reported the results of their analyses in [4].

Although we relied on their respective descriptions of data and methods, we did make several changes both in method and the construction of variables. We'll point out any differences in the appropriate section. One major difference between our approach and Gallup's, is

22. For both DOD and OPM, the surveys from 1998 are now available. When we first began the project, we only had the 1997 DOD survey in hand and, therefore, requested the 1997 OPM survey to match to the same year.

that they focused on differences across individual plans, whereas we aggregated either across specific types of plans (i.e., HMOs and FFS plans) or across beneficiary groups (i.e., current civil service workers and their family members or retirees and their family members). Differences between the current and earlier CNA analyses focus more on the definition of specific variables.

The DOD survey

The survey of DOD beneficiaries is conducted annually and asks a total of 99 questions. This number is somewhat misleading, however, given that some questions may have several parts and other questions will be skipped when it is not appropriate for the respondent to answer them (e.g., skipping over questions that don't apply). But, the overall number does convey the fact that the survey is fairly lengthy and asks the beneficiaries much more than whether or not they were satisfied with the care they received.

CNA uses the survey for a variety of analyses—to examine beneficiary satisfaction as well as to learn where beneficiaries receive care (i.e., military or civilian facilities) or what kinds of insurance they hold. For purposes of this study, we used the survey to examine the satisfaction with the care received of active duty, their dependents, and retirees and their dependents.

In our comparisons, we examine beneficiaries with relatively similar plans. Active duty or beneficiaries in Prime, for example, probably most closely match FEHBP beneficiaries who chose an HMO plan. DOD beneficiaries who don't use the direct care system but use civilian health care exclusively could be compared with individuals in point-of-service or fee-for-service plans.

Therefore, as a first step, we sorted DOD beneficiaries into several mutually exclusive groups that could be compared with each other as well as with OPM beneficiaries. We began with groupings that looked very much like those used in [3]. We kept AD personnel separate from the others in Prime (i.e., the AD dependents and retirees and

their dependents). Of those in the "non-Prime" categories, we separated them into three groups:[23]

- MTF space-available (MTF/SA)—these are individuals who rely on the MTF for space-available care (i.e., they say they are not enrolled in Prime), but may also receive some care at civilian facilities.
- Medicare HMO—these are individuals who receive no care in MTFs and respond that they are now covered by Medicare and are in an HMO. It turns out they are a small group, but they are the only DOD survey respondents who can be identified as explicitly belonging to an HMO.[24]
- Civilian-only—this group also does not use direct care facilities for any of their care. We had hoped to separate the individuals who belong to HMO plans from those who belong to non-HMO plans (e.g., POS or FFS), but the questions are not that finely detailed. Most of them probably do belong to these kinds of plans, but how many belong to each.

Table 24 presents a simple look at the population totals derived from the responses to the survey and incorporating the survey-provided weights. We should point out that the unweighted number of responses for these groups was just under 80,000. But, the weights are important because they are designed to make the sample representative of the true population.

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23. Although these categories are roughly the same categories as in [3], we did define them somewhat differently. There are many questions in the survey that ask related kinds of questions. For example, to create the various non-Prime groups, we relied on a question that asked the beneficiaries whether they received care in military or civilian facilities. On the other hand, [3] relied on a different set of questions to create their groups. We also split the Medicare HMO group out of the civilian-only group. But, these are relatively minor changes; the numbers of individuals in the different groups should be fairly similar.

24. Although we did include them in some of the statistical work, we will not report their results. They are generally older and very satisfied with the care they received, but they make up only a few percent of the total DOD population, even less when combined with the OPM population.

Table 24. Counts of beneficiaries, by category[a]

Source of care	Population in millions[b]
Active duty	1.59
Prime	1.19
MTF space-available	1.55
Medicare HMO	0.16
Civilian only	1.53
No health care or missing	0.33
Total	6.35

a. For both this and the OPM survey, we limited respondents to those who are 18 years or older.
b. The numbers represent the weighted values.

The OPM survey

The OPM survey askes a total of 22 questions versus the 99 on the DOD survey. Yet, this survey, too, includes questions that are designed to learn something about the beneficiary, including his or her age, sex, beneficiary category (current employee or dependent or retiree or dependent), and their satisfaction with the health care plan in which they participate. The FEHBP participant, depending on location, may have many more plans to choose from and the survey is designed to inform all participants about all of the other plans. Thus, if a current civil servant joins one specific HMO, he might be interested in learning about the other plans that he could have joined.

Not every plan participates in the survey. OPM states rules that a plan must have at least 300 members and it should have participated in the FEHB program for at least one year. Nonetheless, in Gallup's report on their findings, they provide information that the total population of the plans participating in the survey was about 4.07 million. From information we received from the OPM Office of the Actuaries (for 1998), the total number of plans was about 4.19 million. Thus, the survey clearly includes most plans.

We described the number of survey respondents and the weighted value of beneficiaries in the DOD survey. In that case, the weights were designed to allow the sample to represent the population of all

beneficiaries. Here, however, the size of the sample drawn from each plan was based on a specific precision requirement that depended on the plan's number of responses to the survey. In other words, a large plan, such as Blue Cross/Blue Shield, with more than 1.6 million plans in force, only had 543 surveys sent out to participants. But, specific HMO plans, with many fewer participants, might have similar numbers of surveys sent out. Therefore, although there were a little more than 1 million HMO plans in force, out of more than 4 million plans in total, almost 63,000 of the total 70,000 surveys that came back were for members of these plans. There were no weights provided to make them more representative of the total plans in force under FEHBP.

This meant that we had to create our own weights. We should also point out that OPM keeps track of the number of sponsored plans, but not the number of beneficiaries. The distinction here is that if a family plan is purchased, that counts as one plan. OPM doesn't keep track of all family members, although the specific health plans surely do.[25] Fortunately, in addition to the data file with survey responses for all 70,000 or so participating respondents, the Gallup Technical Report provided the number of surveys received for each plan (r_i) and the total plan population (p_i). Therefore, our weight for plan i was given by p_i/r_i. Thus, each survey respondent (of whom there were 543) who belongs to BC/BS (more than 1.6 million members) would now represent almost 3,000 members of that plan.

Method

Statistical analysis

One of the benefits of having the CNA and Gallup reports on the respective surveys is that we could examine and compare their findings on satisfaction for each plan. In other words, each report

25. As we pointed out earlier, this statement isn't strictly true. In 1998, the OPM Office of the Actuaries estimated that there were 8.6 million participants in the FEHB program. But, most discussions of population focus on the number of plans, not participants.

presented their respective findings on all of the satisfaction measures they had created. We began this process by taking from each the values they found in their analyses of the survey questions.

Although this was a useful first step, we could not stop there and simply report how the two sets of findings compared. First, not all of the questions asked on the survey were directly comparable. Second, and as we mentioned earlier, the DOD survey provided weights to derive values for the population, the OPM survey did not. A derived percentage pertaining to a specific measure of satisfaction, such as quality or access, even when close in value to that derived from the DOD survey, was therefore not directly comparable. Third, any simple averages taken from each report would not take account of potentially important differences in demographic characteristics across the two populations. Factors including gender, age, and education might play an important role in determining whether there were true differences in satisfaction across the two plans.

For these reasons, it was clear that we couldn't simply draw and compare values out of these two reports. We had to somehow put the two datasets together, weight the respective samples appropriately, create a reasonable set of variables, and find a statistical technique that would enable us to draw conclusions about the two populations' relative satisfaction with their health care plans.

Logit regressions and pooling across populations

We will describe how we constructed the dataset and which questions we used to create measures of satisfaction. But, let's start by briefly describing our statistical technique. We use regression analysis (as did [3] and [4]) to first, determine the statistical significance of changes in key variables and second, as a basis for estimating average values for different subpopulations. For example, in [3], the goal was to determine if beneficiaries were becoming more satisfied over time. In [4], the goal was to determine and predict satisfaction across alternative plans within the FEHBP.

We use similar techniques, but with some variations. Again, due to the way the measures will be created, logit regression on a series of binary-valued dependent variables (i.e., 0 or 1), was used to derive statistical

significance of important variables. These binary variables are used to represent whether the beneficiary was satisfied (a value of 1) or not (a value of 0). As in the other studies, we also include various demographic variables. But, our goal is to determine the relative satisfaction, not over time, as in [4], but across plans within DOD and FEHBP. We'll explain this in more detail later.

The regression models were designed to isolate the effects of certain demographic variables. One constraint we faced working with two separate surveys is that the variables created from each survey have to be identical. For example, both surveys report total family income. However, they report these values in categories, such as between $30,000 and 50,000, or $40,000 to $60,000. We found their categories were different enough that we couldn't create the same variable in both. Nonetheless, this wasn't too much of a problem. Our goal was to correct for certain variables that clearly have an effect on a beneficiary satisfaction. We felt we could make these corrections by including gender, age, education, and health status. For example, we found that the two surveys had slightly different ways of measuring the highest level of education achieved by their beneficiaries. With some simple adjustments to the DOD measure, however, we could recode some of the categories to match the OPM survey measure and thereby include it in our regressions. Using this technique, we could create identical measures of gender, age, education, and health status.

The next issue concerned determining the appropriate set of weights. We've already mentioned the fact that the DOD survey includes weights that can be used to adjust the sample composition to reflect the actual population composition more closely. For the OPM survey, we used our constructed weight of the *plan* population relative to the sample response to do the same for the OPM population.

Another issue concerned whether one regression or several had to be used to examine the satisfaction of different subpopulations. Having created a dataset to represent particular subpopulations—such as AD, those in Prime, or those belonging to an FEHBP HMO—there is the issue of whether or not to *pool* the data to derive regression coefficients. Pooling is a technical econometric term representing the technique of putting two or more different populations together and

obtaining one set of regression coefficients that can be used to represent the various subpopulations. Pooling in our context constrains the coefficients on the demographic variables to be the same across the different populations. In other words, the effect of age or gender would be the same; what would then differ and where we obtain an effect of say, being in Prime, is from the specific coefficient on the binary variable that is equal to 1 if the beneficiary was in Prime and 0 if not. Interaction terms can be introduced—this means multiplying one variable by another, e.g., gender by each of the age terms or by the Prime binary variable—but that gets complicated and confusing. This is especially true with many independent variables in a typical equation and several dependent variables—the various measures of satisfaction—to be estimated.

We decided to deal with this issue by pooling in some cases, without interaction terms, but checking to see whether running the unpooled version changed the results in a substantive manner. Running each population separately—the unpooled version—is really the most general form of the equation. Having estimated the unpooled version if a particular equation for a few test cases, we generally found little, if any, differences in the overall findings. In some cases, however, we felt the pooled results were overly constrained and, therefore, we ran unpooled versions of the regression equations and derived satisfaction levels from these equations. Pooling the various datsets does have an advantage in that we could obtain the effect for several populations with one equation. In the next section, when we describe each set of results, we will discuss which form of the equation we used.

Predicting the mean satisfaction percentage

The next issue concerns how to derive implications of any differences across populations. The sign, magnitude, and statistical significance on the binary variable representing a particular DOD population is really enough to determine whether there is a difference in satisfaction levels from the FEHB beneficiaries. Let's give an example of what we mean. Suppose we're interested in determining the difference in satisfaction among AD, Prime, and OPM HMO planholders. We create three separate binary variables to represent these three different groups. Observations for all three groups must be included in the regression equation, but only two of the binary variables representing

these groups will be included in the regression equation. Including all three means that the coefficients cannot be determined. If the last group, the OPM HMO holders, is the excluded group, then the coefficients on the other two binary variables can be used to determine the respective difference in satisfaction levels between that group, i.e., AD or Prime members, and the OPM HMO planholders.

However, we felt that it was not only the difference but the absolute level of satisfaction, calculated at the mean, that would be of interest here. Including the demographic variables means that we can isolate the effect of being on active duty or in Prime. However, to derive an average predicted value of satisfaction for each subpopulation, we shouldn't use the demographic characteristics of each group in their own regression equation. That would lead to the predicted value of the mean for that group. But, it's not hard to derive a mean for the group through much simpler methods. The problem with simply deriving the mean is that some of the difference in satisfaction levels would be due to differences in demographic characteristics.

Therefore, we chose one population out of those in the pooled equation (or out of the set of unpooled equations for those same subpopulations) and used that selected group's demographic characteristics in each equation to derive predicted values for each subpopulation. What changes is not the demographic characteristics, because they are now the same in each, but the value of the binary variable representing the different subpopulations. Thus, any difference in calculated satisfaction should be due to having different health care coverage.[26]

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26. Because of the mathematical form of the logit, several steps must be taken before deriving the mean satisfaction levels for each subpopulation. Let $\hat{p}$ be the predicted value derived from the combination of regression coefficients and values for all independent variables for each observation. Taking the mean over all observations yields ρ. Using this mean value in the following formula, $e^{\rho}/(1 + e^{\rho})$ yields satisfaction values between 0 and 1.

Constructing the variables

Measuring satisfaction

Let's begin by describing the measures of satisfaction themselves. Until the surveys ask exactly the same questions, there will be some differences. Fortunately, many important types of questions were similar in form and asked for answers that were also similar, if not identical.[27]

In general, we can categorize the kinds of questions into four types:

- Quality
- Access
- Provider characteristics
- Claims procedures.

Because beneficiaries under the DHP could use both military and civilian facilities, the survey begins the satisfaction section by asking first, if they used military facilities and then if the answer is yes, by asking a series of questions designed to determine their satisfaction with their care. If they answer yes to having used civilian facilities, they are then asked to fill out the same questions, but would now be describing the civilian health care they received. There is no similar issue for FEHBP beneficiaries—they are reporting on the doctors and facilities of the plan they belong to.

For the satisfaction with the quality of care, there were three questions that we felt were sufficiently close in the two surveys to use as measures in our analysis. For the first two, the DOD survey asked the beneficiary if they agree or disagree with the following statements about the health care they received at military or civilian facilities:

- I am satisfied with the health care that I received

27. Actually, the 1998 and 1999 surveys have tended to use more of the CAHPS questionnaire, which is a standardized commercial survey.

- I would recommend military (civilian) health care to my family or friends.

Before we turn to the third question, let's discuss the nature of the rating system. For these two questions, there are five possible responses: strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree. With this kind of rating, we followed [3] and deleted the middle response: those who essentially had no strong opinion. We coded as a 1 those responses indicating agreed or strongly agreed and a 0 those responses indicating disagreed or strongly disagreed.

There were two analogous questions in the OPM survey. Under a general heading of overall quality, they ask:

- Overall rating: all things considered, how satisfied are you with your current health plan?
- Would you recommend your current health plan to family or friends if they needed care?

For the first question, there were 7 possible responses, or two more than the DOD survey: extremely satisfied, somewhat satisfied, satisfied, neither satisfied nor dissatisfied, dissatisfied, somewhat dissatisfied, and extremely dissatisfied. Here, too, we disregarded the middle answer, those who were neither satisfied nor dissatisfied and coded any of the three agree categories as a 1 and the three disagree categories as a 0.

For the second question, concerning their recommending to family or friends, the question had 4 possible answers: definitely yes, probably yes, probably no, and definitely no. Here we coded either of the first two responses as a 1 and the second two as a 0.

Thus, there were some differences, but we felt they were close enough to use in our analysis. The third quality question in each survey was much closer, both in how it was asked and the possible responses. In the DOD survey, the respondents were asked to rate the following aspects of health care they received at military (or civilian if applicable) facilities in the past 12 months. Most of the questions and, in fact, all of the remaining questions that we use in our analysis other than

those pertaining to claims, came from this section. Here, we focused on the question asking about the overall quality of health care.

There were five applicable responses (a sixth was to be filled in only if not applicable): poor, fair, good, very good, and excellent. For all of these type of questions, we coded any response of good, very good, or excellent as a 1 and either poor or fair as a 0.

The OPM survey asked respondents as part of the section on overall quality of the plan to rate the overall quality of their medical care and health plan. The possible responses were the same as in the DOD survey, from poor to excellent, and we used the same coding scheme.

For access, we chose to include six questions that were similar in both surveys. both asked about the convenience of hours for making scheduled appointment, access to specialty care, access to hospital care, the ease of making appointments when needed, and the waiting time in the office before being seen. There was also a question on the overall access to health care when it was needed. In both surveys, the possible responses were once again the five from poor to excellent.

To determine the beneficiaries' satisfaction with the doctor or provider in both surveys, we relied on five questions. The first three included: the provider's explanation of what's wrong, the provider's personal concern or interest in the beneficiary as a patient, and the time the provider spends with the patient. We also included in this category two questions that we believe are particularly important to most patients, and is an especially key issue for DOD beneficiaries: the ability to choose the doctor or provider and the ease of seeing the provider of choice.

We'll leave the description of questions relating to claims processing to a later section. These questions are relevant to a relatively small percentage of DOD beneficiaries—those who file a CHAMPUS claim. Thus far, we have 14 questions that we felt were sufficiently important and close in the two surveys to estimate and report as satisfaction measures. For some of the comparisons, we will report the results for all 14. But, for a few other excursions, we will focus on 4 measures that we believe summarize the relative levels of satisfactrion between the DHP and FEHBP. These are:

- Overall quality
- Recommend to family or friends
- Overall access to health care
- Overall satisfaction.

Constructing the demographic variables and plan descriptors

To control for demographic differences across the populations in the regression, we created a series of binary variables (i.e., dummy variables) to describe the beneficiaries gender, age, education, and self-reported health status. Gender is the simplest: male or female. For age, we had 5 groups: 18 to 34, 35 to 44, 45 to 54, 55 to 64, and 65 and older. For education, we had 4 groups: high school diploma or less, some college but no degree, 4-year college degree, post-graduate work. For health status, there were five groups—they followed the same kind of response as the answers to the satisfaction questions, or poor to excellent.

The last set of variables was designed to represent the various beneficiary groups in both the DHP and FEHBP. For example, the first set of results pertain to those who participated in the DOD or FEHBP plans that were members of an HMO plans. For purposes of this analysis, we include the active duty personnel and those in Prime as the DOD "HMO" members and used the beneficiaries in FEHBP HMOs as a comparison group. However, Prime is a complicated mixture of military and civilian care. Therefore, we created several alternative measures of Prime and also had to deal with the fact that members often receive care in either military, civilian, or both kinds of facilities.

How do we measure DOD beneficiaries' satisfaction so that a response can represent all of the facilities that they go to for care? We decided to construct a weighted average of their use of each kind of facility that could then be applied to their answer to a specific question. We had the additional problem of having to deal with individuals who might use outpatient services in one and inpatient services in the other. Being in a hospital is a much different experience from obtaining a laboratory test or seeing your doctor in his/her office. There is no perfect way to put these kinds of services together, but we

decided to make an inpatient stay the equivalent of 10 outpatient visits. We could have assumed an even higher ratio, but decided that even assuming 10 visits for each inpatient stay would likely mean that it would outweigh the total of outpatient visits.

We constructed the "military" weight as the sum of a beneficiary's outpatient visits plus inpatient stays (times 10) at military facilities over this same sum in the denominator plus the sum of the beneficary's outpatient visits and inpatient stays at civilian facilities. The civilian weight would then be 1 minus the military weight. When a beneficary used only one kind of facility, the weight would be 1 for that type of facility and 0 for the other. This technique allowed us to derive a value for satisfaction with the DHP even when an individual used a combination of both military and civilian facilities. The beneficiary's overall value of satisfaction to a particular question would be equal to the weighted average of his/her responses for both kinds of facilities.

Findings

We'll present several different sets of comparisons of satisfaction among DOD and FEHBP beneficiaries:

- The first set includes two different definitions of Prime, based on
  - — Where beneficiaries received their care and
  - — Whether beneficiaries could choose their primary care manager (PCM) or not.
- The second set includes current "employees" who use each system (i.e., AD and federal civilians and their respective family members) as well as DOD and federal civilian retirees.
- The last set compares two remaining sets of DOD beneficiaries with the FEHBP HMO and managed FFS populations:
  - — DOD space-available population
  - — TRICARE Standard filers, although for the analysis of their satisfaction we now use a set of questions that focus on claims processing.

DOD and FEHBP beneficiaries with similar plan types

Prime as defined by usual source of care

In this case, we relied on a survey question that asked the beneficiary what type of place he or she usually goes when they are sick or need health advice. From their responses we then categorized Prime users into two distinct groups—those who usually go to military facilities and those who usually go to civilian facilities.

Table 25 presents each group's demographic characteristics, based on the four variables used in the regression equations. We show the percentage of males and the average age for each subpopulation whose results we obtain from the logit regression. For education and health status, the average isn't as meaningful as the percentages that fell in each of the categories used in the regression.

Table 25. Demographic characteristics—Prime defined by usual source of care

Demographic variables	AD	Prime-military users	Prime-civilian users	FEHBP HMO
Percentage of men	81	22	38	52
Average age	32	42	52	52
Education (percentage)				
High school or less	24	33	34	20
Some college	46	42	39	42
4-year college degree	13	14	13	21
Post-graduate work	17	11	15	16
Health status (percentage)				
Poor	1	2	3	1
Fair	4	9	15	10
Good	22	34	36	32
Very good	42	40	32	40
Excellent	31	16	14	16

Active duty personnel are clearly the youngest and include more-males than the other groups. They generally perceive themselves to

be quite healthy. The oldest groups are the Prime-civilian users and the federal workers and retirees who currently belong to HMO plans.

In this section, we also present our findings for the DOD civilian-only group who will be compared to those federal workers who belong to what we have been referring to as the managed FFS plans (i.e., a POS or FFS plan). Table 26 presents their demographic characteristics. As the table shows, they are similar in terms of their average age, educational attainment and perceived health status. The OPM group has a higher percentage of males, but even that difference is relatively small (about 10 percentage points).

Table 26. Demographic characteristics—DOD civilian-only and FEHBP managed FFS

Demographic variables	DOD civilian-only	FEHBP Managed FFS
Percentage of men	46	56
Average age	57	60
Education (percent)age		
High school or less	34	28
Some college	38	40
4-year college degree	12	17
Post-graduate work	17	15
Health status (percent)age		
Poor	4	3
Fair	15	10
Good	36	32
Very good	33	39
Excellent	13	15

We will not be showing the regression results in the paper.[28] In almost all cases, including those associated with results to be presented in later sections, several common findings can be stated:

28. The regression results are available to interested readers.

- Men were generally less satisfied than women
- Age was negatively correlated with satisfaction. Younger people tend to be much less satisfied with their health care than the older people.
- Education was not alway as clearcut, but generally higher levels of education were negatively correlated with satisfaction.
- Health status was negatively correlated with satisfaction. Those beneficiaries in any plan who felt they were in poorer health were also much less satisfied with their health care plan.

Turning to the comparisons of the various plans themselves, table 27 presents the findings for all 14 questions. Several implications are evident. The AD show the greatest differences in satisfaction from the OPM HMO planholders, even after correcting for the demographic differences between them. Those in Prime who usually go to military facilities, and who were the group we used to derive predictions for all subpopulations, appear to be more satisfied than the AD, but still are not as satisfied as the FEHBP beneficiaries. They tended to be about 4 to 25 percentage points less satisfied than the FEHBP beneficiaries, depending on which measure of satisfaction one examines. The smallest difference, perhaps surprisingly, was in their overall satisfaction level. Less surprising, and this caused the greatest unhappiness in the AD population, was the perceived lack of access. This was true for almost all of the measures that we examined. The lowest satisfaction values among all groups had to do with what we are calling the provider measures. Most groups showed satisfaction levels in the 70 to 80 percent range.

Table 27. Percentage of beneficiaries satisfied, by plan—Prime defined by source of care

Measure	AD	Prime-military users	Prime-civilian users	FEHBP HMOs
Summary measures				
Overall satisfaction	77	84	89	88
Recommend to family/friends	65	78	88	86
Overall quality	74	80	85	85
Overall access to care	65	67	78	86
Access measures				
Convenience of hours	72	79	83	88
Access to specialists	50	57	71	76
Access to hospital care	72	75	83	87
Ease of making appointment	58	62	81	79
Waiting time in office	56	61	67	67
Provider measures				
Explain tests/procedures	72	77	80	82
Shows interpersonal concern	74	78	83	80
Time with provider	67	70	76	74
Ability to choose provider	41	51	65	75
Ease of seeing provider of choice	41	50	66	75

The Prime members who usually rely on civilian providers or facilities, particularly for our summary measures, are generally fairly close to the OPM beneficiaries in HMO plans.[29] Overall access was a few percentage points lower, but in many cases, this group had higher levels of satisfaction when compared with those in FEHBP HMOs.

29. Because of the relatively large sample sizes for all populations, almost all variables in virtually all regressions were statistically significant, with the p-value usually much less than 0.05. We did not explicitly calculate the standard errors of the differences between one included group and another, such as the two Prime groups. But, given the low standard errors on each coefficient, we have every confidence that even including the covariances would not change the implications.

We performed a separate set of regressions for the DOD beneficiaries who went to civilian providers or facilities and compared them with the OPM beneficiaries in managed FFS plans. Table 28 presents these results. Earlier, we said there was no way to really know what kinds of health care plans the DOD beneficiaries were members of, i.e., HMOs or FFS, because of the nature of the questions asked in the survey. The results support the notion that they would be in similar types of plans to the federal beneficiaries because their satisfaction levels are at least as high for most measures studied. In fact, for some measures, such as waiting time in office and the ease of making an appointment, the DOD beneficiaries were significantly more satisfied than those in FEHBP managed FFS plans.

Table 28. Percentage of beneficiaries satisfied, by plan—DOD civilian-only and FEHBP managed FFS

Measure	DOD-civilian only	FEHBP managed FFS
Summary measures		
Overall satisfaction	96	94
Recommend to family/friends	96	92
Overall quality	95	93
Overall access to care	94	95
Access measures		
Convenience of hours	94	94
Access to specialists	90	93
Access to hospital care	95	96
Ease of making appointment	94	85
Waiting time in office	84	72
Provider measures		
Explain tests/procedures	92	90
Shows interpersonal concern	93	89
Time with provider	90	84
Ability to choose provider	89	84
Ease of seeing provider of choice	89	88

Prime defined by being able to choose your PCM

We decided that a second variation in the definition of Prime might be useful in determining how satisfaction with the health care that one receives relates to choice, in this case, of their primary care manager. Therefore, we created an alternative definition of Prime, which now depended on their response to the question in the survey that pertained to being able to choose their own PCM. In the last section, we saw that DOD beneficiaries had lower satisfaction when measured by the question concerning their choice of provider. In this section, we create separate groups depending on whether they were able to choose at least their primary care provider or not.

First, we present their demographic characteristics. The other two subpopulations that we included in the pooled regressions were, as before, the AD and FEHBP HMO members. Table 29 presents the new groups' characteristics as well as the other two in the pooled regression. For the AD and FEHBP planholders, the characteristics are the same as in table 22, but we show them again for convenience. The table shows that the two new Prime groups seem fairly similar, in terms of their education, health status, and ratio of males. They tend to be younger and include fewer males than the FEHBP HMO planholders.

Table 30 compares these groups' satisfaction for the same 14 measures that we examined in the last section. Here, we derived mean satisfaction levels using the demographic characteristics of Prime members who chose their PCM. That's why the values for the AD and FEHBP HMO groups, though close to what we reported in the last section, are just a little different. As before, both of the Prime groups turn out to have generally lower values of satisfaction than the FEHBP HMO planholders. The AD and Prime members who did not choose their PCM usually reported much lower satisfaction with their health care measure when compared to FEHBP planholders. Access to care was especially different. For the overall access to care and access to specialists measures, the difference was between about 13 and 20 percentage points lower for the DOD beneficiaries, but somewhat less for access to hospital care. The overall satisfaction was not as markedly different but, the predictions suggest that the AD and Prime members are about 11 and 7 points, respectively, less satisfied than the FEHBP HMO members.

Table 29. Demographic characteristics—Prime defined ability to choose PCM

Demographic variables	AD	Prime-chose PCM	Prime-did not choose	FEHBP HMO
Percentage of men	81	27	24	52
Average age	32	44	41	52
Education (percentage)				
High school or less	24	33	32	20
Some college	46	41	43	42
4-year college degree	13	14	14	21
Post-graduate work	17	12	11	16
Health status (percentage)				
Poor	1	2	2	1
Fair	4	11	10	10
Good	22	33	34	32
Very good	42	38	39	40
Excellent	31	17	15	16

The difference between those who were able to choose their PCM and the FEHBP planholders was not large in absolute percentage points.[30] Their overall satisfaction with the plan was within a point of each other, but there were still differences in most of the access measures. We found that there was about the same satisfaction with their provider as in the FEHBP plan, but they still report less satisfaction when asked about their ability to choose their provider. We can only interpret these results as indicating that, while they did choose their PCM, they may have been limited in the number to choose from.

Current and retired employees

In this section, we present the summary results for the same beneficiaries, but now we've characterized them not by the type of plan to which they belong, but whether they are current workers or retirees.

30. These results, even when the Prime-chose PCM group was close in mean predicted value to the FEHBP HMO planholders, were significant in a statistical sense.

Table 30. Percentage of beneficiaries satisfied, by plan—Prime defined by ability to choose PCM

Measure	AD	Prime-chose PCM	Prime-no choice of PCM	FEHBP HMOs
Summary measures				
Overall satisfaction	78	88	82	89
Recommend to family/friends	67	85	78	86
Overall quality	75	84	79	85
Overall access to care	66	74	65	87
Access measures				
Convenience of hours	74	83	78	89
Access to specialists	51	64	55	78
Access to hospital care	73	79	74	88
Ease of making appointment	59	72	61	79
Waiting time in office	58	66	61	68
Provider measures				
Explain tests/procedures	73	81	74	83
Shows interpersonal concern	75	82	76	81
Time with provider	69	75	69	75
Ability to choose provider	42	64	43	76
Ease of seeing provider of choice	42	62	43	76

For the military, this definition refers to the AD and their dependents; for FEHBP, the definition refers to current federal civilian workers and their dependents.[31] Note that our definition of retirees includes those 65 and older.

31. Because of the differences in demographic characteristics across these different populations, we derived results from running the unpooled versions of the logit regressions. For the current workers, we used the AD and their dependents to derive predicted satisfaction levels for both that group and the current federal workers and dependents. For the three retiree subpopulations (i.e., including federal retirees), we used the DOD retirees who said they usually received care at MTFs.

As we did earlier for Prime members, we created two groups of DOD retirees (and dependents), again based on their source of care. In other words, we split out those DOD retirees who said they received most of their care at military facilities from those who received most of their care at civilian facilities. Almost three times as many retirees receive their care at civilian facilities (although this would include Prime members who receive care through the civilian network).

Table 31 shows the demographic characteristics of the five groups. First, the AD and dependents are younger than current federal civilian workers and generally consider themselves more healthy. The DOD retiree groups are fairly similar to each other, although those who usually go to the MTF are slightly younger and are not quite as heavily male. The FEHBP retirees are older, but very similar in terms of educational levels and their self-reported health status.

Table 31. Demographic characteristics—current and retired DOD and FEHBP beneficiaries

Demographic variables	AD and ADFM	Retired DOD military usual source of care	Retired DOD civilian usual source of care	FEHBP current workers	FEHBP retirees
Percentage of men	54	46	49	53	58
Average age	32	55	60	47	69
Education (percentage)					
High school or less	25	39	37	15	35
Some college	46	37	36	41	42
4-year college degree	15	10	11	24	13
Post-graduate work	15	14	16	20	10
Health status (percentage)					
Poor	1	3	5	1	5
Fair	4	15	17	7	14
Good	25	38	37	28	35
Very good	43	32	31	43	36
Excellent	28	12	11	21	10

Table 32 presents the results for the four summary measures of satisfaction. Current FEHBP beneficiaries are apparently much more satisfied with their plan than are the AD and their dependents. We find about an 11 point difference in overall satisfaction, but the spread becomes as high as 26 points for the access to care measure.

Table 32. Percentage of beneficiaries satisfied, by plan—current and retired DOD and FEHBP beneficiaries

Measure	AD and ADFM	Current federal civilian	Retired-use military facilities	Retired-use civilian facilities	FEHBP retirees
Overall satisfaction	77	86	89	95	96
Recommend to family/friends	66	86	83	91	89
Overall quality	76	89	86	92	95
Overall access to care	66	92	71	88	97

We don't find the same differences for the retiree groups. The FEHBP retirees rate themselves more satisfied than either DOD retiree group, but the differences are small for those DOD retirees who rely on civilian sources. In terms of overall satisfaction, they are very close, within one point of each other. A slightly higher percentage of these retirees would recommend the plan to family and friends when compared to the FEHBP retirees. There is more of a difference between the FEHBP retirees and those DOD retirees who rely on the MTFs. Even here, however, we find the DOD retirees' satisfaction levels either close to or higher than 90 percent. Clearly, the differences are larger for non-retirees.

Space-available, TRICARE Standard filers, and FEHBP beneficiaries

There are two remaining DOD groups that we we haven't discussed as yet—those who use the MTF on a space-available basis and those TRICARE Standard beneficiaries who file a CHAMPUS claim. These groups are somewhat different from participants in non-DOD health care plans. Space-available users don't sign up for any care; they just

show up and receive care when there is room. CHAMPUS filers are similar to FEHBP beneficiaries who receive care in the civilian health care market—both receive care and file claims. The major difference is that there is no premium for using TRICARE Standard. As we have shown earlier in this paper, they seem to have a good deal when it comes to their health care coverage, but many of them complain about procedures they have to face to get reimbursed. We will examine a few of measures dealing with the satisfaction associated with the filing procedures.

In both cases, we compare each of these two groups against the FEHBP HMO and managed FFS planholders. As we said above, it's somewhat unclear whether these groups are comparable to them. Nonetheless, we felt that should DOD beneficiaries who use space-available care or TRICARE Standard be given a choice of joining FEHBP, these would be their options.

We estimated the relationships separately. That is, for the four summary measures, we compared space-available users against the two FEHBP groups (in a pooled equation). For the CHAMPUS filers, however, we considered three alternative measures that focus on claims processing. Those measures are new and we will explain them shortly.

Table 33 shows their demographic characteristics. Just for convenience, we show all four groups together—the two DOD groups and the two FEHBP groups' characteristics repeated from earlier tables. There are some differences between the space available group and the other two FEHBP groups. Although similar in age and education, they apparently perceive themselves to be healthier. This seems sensible because they have no guarantee of receiving health care when they want it. Generally healthier people (or those who can't afford it) might run this kind of risk.

Those who use TRICARE Standard tend to be a little younger and more of them are female than the other groups. Other than that, their demographics are similar, particularly when compared to the FEHBP beneficiaries.

Table 33. Demographic characteristics—MTF space-available users and FEHBP planholders

Demographic variables	MTF space-available	CHAMPUS filers	FEHBP HMO	FEHBP managed FFS
Percentage of men	40	35	52	56
Average age	54	47	52	60
Education (percentage)				
High school or less	24	32	20	28
Some college	46	41	42	40
4-year college degree	13	13	21	17
Post-graduate work	17	14	16	15
Health status (percentage)				
Poor	1	3	1	3
Fair	4	13	10	10
Good	22	34	32	32
Very good	42	35	40	39
Excellent	31	15	16	15

Comparing the satisfaction of space-available users with FEHBP beneficiaries

Table 34 shows our results for the four summary measures. The predicted values (using the space-available group's demographics to obtain the predictions from a pooled equation) are fairly close for all measures. The DOD group consistently has the lowest satisfaction levels and the managed FFS the highest. The only measure in which the DOD group is much lower is the overall access to care measure. This finding is what one would expect, given the meaning of space available care.

Comparing the satisfaction of TRICARE Standard filers with FEHBP beneficiaries

The last comparison is between those who filed a CHAMPUS (TRICARE Standard) claim and the FEHBP planholders. All beneficiaries of private plans will on occasion have to file claims, although HMO holders would be expected to have to do this much less often than

FFS plans. As we've already said, the questions we'll report on here are different than the previous questions we used to create measures of satisfaction. Further, it was unfortunately the case that the questions were not as close in meaning as the other questions in the two surveys. Nonetheless, we felt it was useful to pull together those questions that were most alike and see if we could measure differences across the two beneficiary populations.

Table 34. Percentage of beneficiaries satisfied, by plan—MTF space-available users and FEHBP planholders

Summary measure	MTFSA	FEHBP HMO	FEHBP managed FFS
Overall satisfaction	89	91	93
Recommend to family/friends	86	89	91
Overall quality	84	87	92
Overall access to care	71	89	93

This still meant that several of the questions were sufficiently different that we felt we couldn't use them. The three we did use asked the beneficiaries to mark down their satisfaction with:

- DOD: claims processing procedures versus OPM: how easy the forms are to fill out
- DOD: time it takes to solve claims problems versus OPM: how quickly claims are processed
- DOD: amount of the deductible versus OPM: overall rating for costs you have to pay.

There are differences between what each asks its own beneficiaries. Yet, the relationship is clear and we felt it was still worthwhile to compare satisfaction for these questions, given the concern that is often expressed over claims procedures.

Table 35 shows the results for these three questions. We pooled the three subpopulations and used the CHAMPUS group's demographics to derive predictions for all three. For two out of the three

measures, the HMO beneficiaries were the most satisfied, which is what we would expect. As we said, they should have the fewest claims to file. They were less satisfied than their FFS counterparts when it came to the time it took to solve problems. Possibly this means that when they did have to file a claim, their HMO was not particularly responsive.

Table 35. Percentage of beneficiaries satisfied, by plan—CHAMPUS filers and FEHBP planholders

Claims measure	CHAMPUS filers	FEHBP HMO	FEHBP managed FFS
Claims procedures/amount of paperwork	59	90	84
Time to solve problems/process claims	45	76	82
Amount of deductible/overall costs	42	79	65

Clearly, the DOD filers are much less satisfied than the FEHBP beneficiaries. In all three cases, they are somewhere between 23 and 37 percentage points less satisfied than the FEHBP managed FFS beneficiaries (the "missing" group in the regression, or the one that their satisfaction can be most directly compared with). One hears of beneficiaries dissatisfaction with filing procedures under Standard. We can't tell if they simply feel that they shouldn't have to file anything or whether the procedures are as painful as is indicated here. But, the implications are clear: they are very dissatisfied with claims processing through the old CHAMPUS (now Standard) when compared to the much higher marks given by FEHBP beneficiaries to their plans.

Concluding remarks

In our examination of the DOD health care benefit, we have compared it with FEHBP and private sector plans in terms of its:

- Coverage of health care services, for Prime, for space-available care, and through TRICARE Standard/Extra
- Projected out-of-pocket costs when beneficiaries experience health care claims (including premiums, when appropriate)
- Benefits value, for health care of current workers and retirees[32]
- Satisfaction with various aspects of health care, including overall satisfaction, overall quality, access to care, and experiences with providers either at military or civilian facilities.

First, concerning the health care plan design and projected OOP costs, we found the following:

- DOD offers a variety of plans, most having no premiums. This is very different from the civilian world, including FEHBP.
  - — DOD's plans can be classified as approximating a managed fee-for-service—i.e., TRICARE Standard/Extra—as well as an HMO through Prime or care to active duty personnel.
- TRICARE Standard/Extra offers comparable coverage at a much lower premium cost than the FEHBP or private sector plans we examined.
  - — There is no premium for Standard/Extra, whereas 1999 enrollees in FEHBP managed-FFS plans paid more than $800 annually for single coverage and $1,700 for family coverage. In 2000, premium costs have increased by almost

32. In addition, values are provided for other benefits that, together with health care, constitute a total compensation package.

10 percent. But, there still is no premium for Standard/Extra.

— Private sector employees enrolled in managed-FFS plans through their place of employment pay an average of $443 annually for single coverage and $1,763 for family coverage.

— The only room for improvement in the Standard/Extra benefit might be in providing a richer benefit for inpatient care for retirees and their dependents and lowering the out-of-pocket maximum for this beneficiary group, because it is well above private sector norms.

- TRICARE Prime offers comparable if not better coverage at a much lower premium cost than any of the other plans we examined.

  — Only retirees and their dependents pay a premium for Prime: $230 for single coverage and $460 for family coverage. All of the FEHBP HMO plans had much higher premiums. In general, the civilian network copays are higher for provider care than the copays in FEHBP plans, but, given that there are no copays for care provided by military providers, the coverage is quite rich.

Next, we calculated the common costs or values of all benefits, including health care, and we found that:

- The DOD health care benefit is quite rich.

  — The total health care benefit, which includes the value of the retiree health benefit, was about 47 percent higher than what is provided to federal civilians and about 37 percent higher than that provided to private sector workers.

  — The value of retiree health care benefits alone, however, was significantly lower—53 percent lower when compared to federal civilians and 45 percent lower when compared to private sector workers. The lower value for DOD personnel results from the loss of many benefits as retirees reach 65.

Finally, despite what appears to be a relatively "rich" set of health care benefits, many DOD beneficiaries are less satisfied than similar beneficiaries under the FEHB program:

- We determined this after creating several measures of satisfaction for several different DOD and FEHBP subpopulations:
  - The first set of comparisons involved beneficiaries in HMO-like plans (i.e., AD or Prime members vs. FEHBP HMO planholders). We found that HMO planholders under FEHBP were significantly more satisfied than DOD beneficiaries. Satisfaction levels were closest for Prime members who usually received care in civilian facilities or who were able to choose their primary care manager.
  - In another set, we compared current employees, i.e., AD and their dependents and current federal civilians and their dependents, as well as each plan's retirees and dependents. In general, DOD retirees, though less satisfied than federal employees with their health plan, expressed satisfaction levels close to 90 percent for four summary measures. The AD and their dependents were much less satisfied than current employees of the federal government.
  - DOD beneficiaries who file claims through TRICARE Standard (CHAMPUS) are much less satisfied with claims processing procedures (by 20 or more percentage points) than federal beneficiaries who belong to an FEHBP plan.

To sum up, the benefit provided to DOD beneficiaries, including the AD, retirees, and family members, compares very favorably with competing plans in terms of the lower out-of-pocket cost they would be expected to pay when they require health care or in the computed value associated with the benefit. Nonetheless, many of these beneficiaries express lower levels of satisfaction when compared to federal civilians under the FEHB program.

The "value" of a health care plan to DOD beneficiaries is a complicated mixture of its cost to them and their perception of how it compares to other plans in terms of quality, access, and choice. Given the various costs, including premiums under FEHBP, it is still unclear

whether DOD beneficiaries would be any happier with FEHBP if offered an opportunity to enroll. It would certainly lead to wider choice than most of the DOD options, but at a significantly higher cost.

Appendix A: Plan design for DOD, FEHBP, and private sector plans

Appendix A covers several of the benefits not discussed in the text. It also includes tables that summarize the benefit plan design for the:

- TRICARE Standard/Extra and Prime plans
- FEHBP in and out of network managed fee for service plans
- Private sector managed fee for service plans
- 100 largest FEHBP HMO plans
- 2 representative private sector HMO plans.

Comparing TRICARE Standard/Extra with FEHBP Managed-FFS Options

Side by side comparison for several additional benefits

Laboratory and X-ray services

In network. TRICARE Extra users must pay their copayments even if lab work is done as part of a physician visit. BC/BS standard option enrollees need pay nothing for lab work which is done as part of an office visit, but do need to pay an additional $12 copay otherwise. MBP high option enrollees also need pay nothing for lab work or X-rays that are done as part of an office visit, but have to pay a $15 copay for X-rays and a $5 copay for labwork if it isn't part of an office visit. The two FEHBP plans have an advantage here in that any lab work done as part of an office visit is free (covered under a fixed office visit copay) whereas, under Extra, the benficiary has to pay a percentage of the cost for *all* lab work.

Out of network. The TRICARE Standard benefit compares quite favorably to benefits in the two FEHBP plans. BC/BS standard option enrollees must pay 25 percent and MBP high option enrollees must pay 30 percent of allowable charges.

Ambulance services

In network. The MBP high option definitely dominates here as enrollees need pay none of the costs for necessary ambulance services. BCBS standard option enrollees must pay 5 percent of a discounted negotiated rate. Both of these provide a richer benfit than the Extra where the DOD beneficiaries must pay either the 15 or 20 percent copay.

Out of network. The MBP high option again dominates here since enrollees do not have to pay a copay for necessary care. Enrollees in the BCBS standard option must pay 25 percent of allowable charges, which is the same as what DOD retirees and dependents must pay and more than what active duty family members must pay under Standard. Therefore, Standard compares favorably with the BC/BS standard option but unfavorably with the MBP high option.

Emergency sevices

In network. Enrollees in both the BC/BS standard option and MBP high option plans face no charges for emergency care resulting from accidental injury as long as the care is rendered within 72 hours of the injury. Also, enrollees in these plans face no charges for care in emergency cases. If an enrollee in either plan uses the emergency room for care of an illness which is not an emergency then they must pay 5 percent of negotiated emergency room charges. In the case of the BC/BS standard option, the outpatient deductible applies in non-emergency cases. Both these plans provide a better benefit here than does TRICARE Extra, where DOD benficiaries must pay 15 or 20 percent of negotiated charges depending on their beneficiary status in all cases.

Out of network. Again, enrollees in both the BC/BS standard option and MBP high option plans face no charges for emergency care resulting from accidental injury, as long as the care is rendered within 72 hours of the injury, or for care of illness in emergency cases. If an

enrollee in either plan uses the emergency room for care of an illness which is not an emergency then they must pay 25 percent of allowable emergency room charges. In the case of the BCBS standard option, the outpatient deductible applies in these non-emergency cases. In the case of the MBP high option, a special $50 deductible applies in these non-emrgency cases. Again, both of the plans offer a richer benefit than TRICARE Standard, mostly in that they fully cover emerency room visits for emergencies and accidental injuries.

Well-child care

In network. The BC/BS standard option is definitely the richest plan as it pays all charges for well-child care. The MBP high option is not nearly as rich. Enrollees must pay a $15 copayment per well-child visit and the plan only pays up to $100 annually per child. Given this limited coverage it is likely that Extra compares quite favorably with the MBP high option in-network benefit. It still is not nearly as rich as the BC/BS benefit here.

Out of network. Even for care out of network, the BC/BS standard option is the richest plan—it pays all allowable charges for well-child care. However, the TRICARE Standard benefit compares quite favorably with the MBP high option non-network benefit. Enrollees in the MBP high option must pay 30 percent of allowable charges and the plan limits its payments to only $75 annually per child.

Durable medical equipment

In network. Enrollees in the BC/BS standard option must pay 5 percent of negotiated fees if they obtain their equipment through network providers. This is a richer benefit than DOD beneficiaries get through TRICARE Extra. MBP high option enrollees must pay a $100 deductible per item. Whether this benefit is richer than the Extra benefit depends on the cost of the items. The MBP high option would be a richer plan for items costing more than $500.

Out of network. Enrollees in the BC/BS standard option must pay 25 percent of allowable charges for medical equipment obtained from non-network providers. This is comparable to the TRICARE Standard benefit. Again, the MBP high option enrollees must pay a $100

deductible per item. In this case MBP would be the richest plan for those items costing over $400.

Home health care

In network. BC/BS standard option enrollees must pay 5 percent of negotiated fees for in-home nursing care. They are limited to 25 two-hour nursing visits per year. For all visits beyond the twenty fifth they must pay the total charge. The MBP high option currently does not offer a home health care benefit. Under TRICARE Extra the normal cost-sharing applies for home health care. Also there is no limit to the number of home health visits an enrollee can have. Thus, TRICARE Extra definitely provides a better benefit here than the MBP high option, but it is uncertain as to whether it provides a better benefit than the BC/BS standard option. Extra provides better coverage in cases when the number of home health visits greatly exceeds 25 visits.

Out of network. BC/BS standard option enrollees must pay 25 percent of allowable charges for in-home care, if they obtain care from a non-network provider. Again, the MBP high option does not offer a home health care benefit. Here TRICARE Standard compares quite favorably with both of the FEHBP plans, especially when you consider that there is no limit to the number of home health visits under Standard.

Immunizations

In network. Active duty family members face their usual copay of 15 percent for immunizations, but retirees and their dependents are not covered at all. Enrollees in the BC/BS standard option pay only 5 percent of negotiated fees, whereas enrollees in the MBP high option are fully covered in that they have no cost share. Thus, the TRICARE Extra benefit does not compare favorably with the in-network coverage provided by the two FEHBP plans.

Out of network. Active duty family members face their usual copay of 20 percent of allowable charges but, again, retirees and their dependents are not covered for immunizations. The benefit for active duty family members compares favorably with the BC/BS standard option benefit, where enrollees must pay 25 percent of allowable charges. It does not compare favorably withthe MBP high option, where immunizations are fully covered and the enrollees need not pay a cost

share. The benefit for retirees does not compare favorably with either plan.

Eye examinations

In network. Neither the BC/BS standard option nor the MBP high option cover eye examinations. DOD retirees and their dependents also are not covered under Extra. Family of active duty are covered and must pay only 15 percent of negotiated charges under Extra. So, for this beneficiary group TRICARE compares quite favorably with the FEHBP plans.

Out of network. Again, neither of the FEHBP plans cover eye examinations. Active duty family members are covered under Standard and must pay 20 percent of allowable charges. DOD retirees and their dependents are not covered for eye exams under TRICARE.

Table 36 compares the plan benefits for TRICARE Extra with the in network benefits for the BC/BS standard option and MBP high option.

Table 37 compares the plan benefits for TRICARE Standard with the out of netwrok benefits for the BC/BS standard option and MBP high option.

Table 36. Comparing TRICARE Extra with Network Benefits from FEHBP Plans

Coverage Element	TRICARE Extra	Blue Cross/Blue Shield Standard PPO	Mailhandlers' High PPO
Premium	None	Individual: $733 Family: $1,620	Individual: $1,011 Family: $1,915
Annual Oupatient Deductible	Individual: $150/$50[a] Family: $300/$100	Individual: $200 Family: $400	Individual: None Family: None
Individual Provider Services Office visits; outpatient office-based surgery; specialty care; allergy treatment; osteopathic manipulation; medical supplies used within office visits.	**Active Duty Family Members:** Cost share - 15% of negotiated fee after deductible has been met. **Retirees and Their Dependents:** Cost share is 20% of negotiated fee after deductible has been met.	Cost share - $12 copay after deductible has been met, except office-based outpatient surgery which has a 5% copay.	Cost shares - $10 - $15 copays for office visits; $50 copay for office-based outpatient surgery; $5 copay for allergy injections.
Laboratory and X-Ray Services	**Active Duty Family Members:** Cost share - 15% of negotiated fee after deductible has been met. **Retirees and Their Dependents:** Cost share is 20% of negotiated fee after deductible has been met.	No cost if done as part of physician office visit. Otherwise, $12 copay after deductible has been met.	No cost if done as part of physician office visit. Otherwise, $15 copay for X-ray, $5 copay for lab work.
Ambulance Services	**Active Duty Family Members:** Cost share - 15% of negotiated fee after deductible has been met. **Retirees and Their Dependents:** Cost share is 20% of negotiated fee after deductible has been met.	Cost share - 5% of negotiated rate, after deductibel has been met, if there exists a preferred provider	No cost share.

Table 36. Comparing TRICARE Extra with Network Benefits from FEHBP Plans

Coverage Element	TRICARE Extra	Blue Cross/Blue Shield Standard PPO	Mailhandlers' High PPO
Emergency Services	**Active Duty Family Members:** Cost share - 15% of negotiated fee after deductible has been met. **Retirees and Their Dependents:** Cost share is 20% of negotiated fee after deductible has been met.	No charge for care rendered within 72 hours of injury.	Cost share is 5% of care of illness. No charge for care rendered within 72 hours of injury.
Durable Medical Equipment Prescribed by Provider	**Active Duty Family Members:** Cost share - 15% of negotiated fee after deductible has been met. **Retirees and Their Dependents:** Cost share is 20% of negotiated fee after deductible has been met.	Cost share - 5% of negotiated rate after deductible has been met.	Cost share - $100 deductible per item.
Home Health Care	**Active Duty Family Members:** Cost share - 15% of negotiated fee after deductible has been met. **Retirees and Their Dependents:** Cost share is 20% of negotiated fee after deductible has been met.	Cost share - 5% of negotiated charges after deductible has been met. Limited to 25 two-hour nursing visits per year.	No current benefit.
Well-Child Care	**Active Duty Family Members:** Cost share - 15% of negotiated fee after deductible has been met. **Retirees and Their Dependents:** Cost share is 20% of negotiated fee after deductible has been met.	No cost share. Fully covered. Outpatient deductible does not apply.	Cost share - $15 copayment per visit. Plan pays up to $100 per child annually.

Table 36. Comparing TRICARE Extra with Network Benefits from FEHBP Plans

Coverage Element	TRICARE Extra	Blue Cross/Blue Shield Standard PPO	Mailhandlers' High PPO
Prescription Drugs - Retail	**No deductible.** **Active Duty Family Members:** Cost share - 15% of negotiated fee. **Retirees and Their Dependents:** Cost share is 20% of negotiated fee.	$50 deductible per person or $100 deductible per family. Cost share - 20% of negotiated rate.	$250 deductible per person. Cost share - 25% of actual charges.
Prescription Drugs - Mail Order	**No deductible.** **Active Duty Family Members:** Cost share - $4 copayment per fill up to 90 days. **Retirees and Their Dependents:** Cost share is $8 copayment per fill up to 90 days.	Cost share - $12 copayment per fill up to 90 days.	Cost shares - $10 copayment per generic fill up to 90 days. $40 copayment per brand name fill up to 90 days
Ambulatory Surgery Performed at Hospital or Surgical Center	**Active Duty Family Members:** Cost share - $25 copayment. **Retirees and Their Dependents:** Cost share is 20% of negotiated fee after deductible has been met.	Cost share - 5% of negotiated fee for physician services, after deductible has been met.	Cost share - $50 copayment for surgeon. No copay for facility costs.
Immunizations	**Active Duty Family Members:** Cost share - 15% of negotiated fee after deductible has been met. **Retirees and Their Dependents:** No coverage.	Cost share - 5% of negotited fee, after deductible has been met.	No cost share. Fully covered

Table 36. Comparing TRICARE Extra with Network Benefits from FEHBP Plans

Coverage Element	TRICARE Extra	Blue Cross/Blue Shield Standard PPO	Mailhandlers' High PPO
Eye Examinations	**Active Duty Family Members:** Cost share - 15% of negotiated fee after deductible has been met. **Retirees and Their Dependents:** No coverage.	No coverage.	No coverage.
Inpatient Care (Includes Maternity)	**Active Duty Family Members:** $9.90 per diem (minimum $25 per admission). **Retirees and Their Dependents:** Lesser of 25% of institutional charges or $250 per diem, plus 20% of negotiated professional charges.	No charge for hospital. Unlimited days. Cost share is 5% of negotiated rate for professional charges.	No charge for hospital. Unlimited days. Cost share for professional charges is $50 for each.
Outpatient Mental Illness/Substance Abuse	**Active Duty Family Members:** Cost share - 15% of negotiated fee. **Retirees and Their Dependents:** Cost share is 20% of negotiated fee. Benefit generally limited to 23 visits per year.	Facility Care: at most $25 per day after annual deductible is met. Professional Charges: cost share is 40% of negotiated fee. Limited to 20 visits per year.	Cost share - 50% of negotited fee. Limited to 20 visits pe year.

Table 36. Comparing TRICARE Extra with Network Benefits from FEHBP Plans

Coverage Element	TRICARE Extra	Blue Cross/Blue Shield Standard PPO	Mailhandlers' High PPO
Inpatient Mental Illness/ Substance Abuse	**Active Duty Family Members:** $20 per day (minimum $25 per admission). **Retirees and Their Dependents:** Cost share is 20% of negotiated institutional and professional charges. Mental health benefit limited to 30 days per year for adults, 45 days per year for children. Substance abuse benefit limited to 1 rehabilitation program per year, up to 3 per lifetime.	Cost share is 40% of negotiated fees, capped at $150 per day. Mental health benefit limited to 100 days per year. Substance abuse benefit limited to 1 rehabilitaion program per lifetime.	Cost share is 30 % of negotiated fees. Combined benefit limited to 45 days per year.
Out of Pocket Maximum	**Active Duty Family Members:** $1,000 per calendar year. **Retirees and Their Dependents:** $7,500 per calendar year.	$2,000 per calendar year.	$2,000 per calendar year.

a. The deductibles under TRICARE Extra are typically $150 per person and $300 per family except in the case of dependents of active duty members of rank E1 to E4. For these active duty dependents the deductibles are only $50 per person and $100 per family.

Table 37. Comparing TRICARE Standard with Out of Network Benefits from FEHBP Plans

Coverage Element	TRICARE Standard	Blue Cross/Blue Shield Standard Non-PPO	Mailhandlers' High Non-PPO
Premium	None	Individual: $733 Family: $1,620	Individual: $1,011 Family: $1,915
Annual Oupatient Deductible	Individual: $150/$50[a] Family: $300/$100	Individual: $200 Family: $400	Individual: None Family: None
Individual Provider Services Office visits; outpatient office-based surgery; specialty care; allergy treatment; osteopathic manipulation; medical supplies used within office visits.	**Active Duty Family Members:** Cost share - 20% of allowable charges after deductible has been met. **Retirees and Their Dependents:** Cost share is 25% of allowable charges after deductible has been met.	Cost share - 25% of allowable charges after deductible has been met.	Cost share - 30% of allowable charges. Office based outpatient surgery has a $50 deductible as well.
Laboratory and X-Ray Services	**Active Duty Family Members:** Cost share - 20% of allowable charges after deductible has been met. **Retirees and Their Dependents:** Cost share is 25% of allowable charges after deductible has been met.	Cost share - 25% of allowable charges after deductible has been met.	Cost share - 30% of allowable charges.
Ambulance Services	**Active Duty Family Members:** Cost share - 20% of allowable charges after deductible has been met. **Retirees and Their Dependents:** Cost share is 25% of allowable charges after deductible has been met.	Cost share - 25% of allowable charges after deductible has been met.	No cost share.

Table 37. Comparing TRICARE Standard with Out of Network Benefits from FEHBP Plans

Coverage Element	TRICARE Standard	Blue Cross/Blue Shield Standard Non-PPO	Mailhandlers' High Non-PPO
Emergency Services	**Active Duty Family Members:** Cost share - 20% of allowable charges after deductible has been met. **Retirees and Their Dependents:** Cost share is 25% of allowable charges after deductible has been met.	No charge for care rendered within 72 hours of injury.	Cost share is 25% along with a $50 deductible for care of illness. No charge for care rendered within 72 hours of injury.
Durable Medical Equipment Prescribed by Provider	**Active Duty Family Members:** Cost share - 20% of allowable charges after deductible has been met. **Retirees and Their Dependents:** Cost share is 25% of allowable charges after deductible has been met.	Cost share - 25% of allowable charges after deductible has been met.	Cost share - $100 deductible per item.
Home Health Care	**Active Duty Family Members:** Cost share - 20% of allowable charges after deductible has been met. **Retirees and Their Dependents:** Cost share is 25% of allowable charges after deductible has been met.	Cost share - 25% of allowable charges after deductible has been met. Limited to 25 two-hour nursing visits per year.	No current benefit.
Well-Child Care	**Active Duty Family Members:** Cost share - 20% of allowable charges after deductible has been met. **Retirees and Their Dependents:** Cost share is 25% of allowable charges after deductible has been met.	No cost share. Fully covered. Outpatient deductible does not apply.	Cost share - 30% of allowable charges . Plan pays up to $75 per child annually.

Table 37. Comparing TRICARE Standard with Out of Network Benefits from FEHBP Plans

Coverage Element	TRICARE Standard	Blue Cross/Blue Shield Standard Non-PPO	Mailhandlers' High Non-PPO
Prescription Drugs - Retail	**Active Duty Family Members:** Cost share - 20% of allowable charges after deductible has been met. **Retirees and Their Dependents:** Cost share is 25% of allowable charges after deductible has been met.	$50 deductible per person or $100 deductible per family. Cost share - 40% of average wholesale price.	$250 deductible per person. Cost share - 50% of actual charges.
Prescription Drugs - Mail Order	**Does not apply.**	**Does not apply.**	**Does not apply.**
Ambulatory Surgery Performed at Hospital or Surgical Center	**Active Duty Family Members:** Cost share - $25 copayment. **Retirees and Their Dependents:** Cost share is 25% of allowable charges after deductible has been met.	Cost share - 25% of allowable charges for physician services, after deductible has been met.	Cost share - 30% of reasonable and customary (R&C) charges after $50 deductible for surgeon. 30% of R&C charges after a $250 per occurence deductible for facility costs
Immunizations	**Active Duty Family Members:** Cost share - 20% of allowable charges after deductible has been met. **Retirees and Their Dependents:** No coverage.	Cost share - 25% of alowable charges after deductible has been met.	No cost share. Fully covered
Eye Examinations	**Active Duty Family Members:** Cost share - 20% of allowable charges after deductible has been met. **Retirees and Their Dependents:** No coverage.	No coverage.	No coverage.

Table 37. Comparing TRICARE Standard with Out of Network Benefits from FEHBP Plans

Coverage Element	TRICARE Standard	Blue Cross/Blue Shield Standard Non-PPO	Mailhandlers' High Non-PPO
Inpatient Care (Includes Maternity)	**Active Duty Family Members:** $9.90 per diem (minimum $25 per admission). **Retirees and Their Dependents:** Lesser of 25% of institutional charges or $360 per diem, plus 25% of negotiated professional charges.	$250 per admission deductible for hospital. Unlimited days. Cost share is 25% of allowable charges for professional charges.	$250 per admission deductible for hospital. Unlimited days. Cost share for professional charges is 25% of allowable charges after a $50 copayment.
Outpatient Mental Illness/Substance Abuse	**Active Duty Family Members:** Cost share - 20% of allowable charges after deductible has been met. **Retirees and Their Dependents:** Cost share is 25% of allowable charges after deductible has been met. Benefit generally limited to 23 visits per year.	Facility Care: at most $25 per day after annual deductible is met. Professional Charges: cost share is 40% of allowable charges. Limited to 20 visits per year.	Cost share - 50% of allowable charges. Limited to 20 visits pe year.

Table 37. Comparing TRICARE Standard with Out of Network Benefits from FEHBP Plans

Coverage Element	TRICARE Standard	Blue Cross/Blue Shield Standard Non-PPO	Mailhandlers' High Non-PPO
Inpatient Mental Illness/ Substance Abuse	**Active Duty Family Members:** $20 per day (minimum $25 per admission). **Retirees and Their Dependents:** Cost share is lesser of 25% of allowable institutional charges or $140 per day, plus 25% of professional charges. Mental health benefit limited to 30 days per year for adults, 45 days per year for children. Substance abuse benefit limited to 1 rehabilitation program per year, up to 3 per lifetime.	Cost share is 40% of negotiated fees, capped at $250 per day in member facilities and $400 per day in non-member facilities. Mental health benefit limited to 100 days per year. Substance abuse benefit limited to 1 rehabilitaion program per lifetime.	$250 per admission deductible. Cost share is 30 % of negotiated fees. Combined benefit limited to 45 days per year.
Out of Pocket Maximum	**Active Duty Family Members:** $1,000 per calendar year. **Retirees and Their Dependents:** $7,500 per calendar year.	$3,750 per calendar year.	$3,000 per calendar year.

a. The deductibles under TRICARE Standard are typically $150 per person and $300 per family except in the case of dependents of active duty members of rank E1 to E4. For these active duty dependents the deductibles are only $50 per person and $100 per family.

Managed Fee for Service Plans in the private sector

As part of our analysis in the main body of the paper, we compared the out of pocket expenditures individuals would be left with under TRICARE Standard/Extra with what they would be left with under representative private sector managed FFS plans. In table 38 we describe the coverage of the three representative managed FFS plans that the Hay Group used to generate the out of pocket expenses. One plan offers a very high level of coverage, one plan offers a medium level of coverage, and the last plan offers a relatively low level of coverage.

Table 38: The coverage offered by the Hay Group private sector Managed FFS Comparison Group Plans

	PRIVATE SECTOR MANAGED FFS PLANS					
Coverage Element	**HIGH**		**MEDIUM**		**LOW**	
	In	Out	In	Out	In	Out
Deductible						
Single	$0	$200	$200	$200	$300	$300
Family	$0	$400	$400	$400	$600	$600
Maximum Out-of-Pocket						
Single	$0	$500	$1,000	$1,500	$1,500	$2,000
Family	$0	$1,000	$2,000	$3,000	$3,000	$4,000
Hospitalization						
Deductible	$0	$0	$0	$0	$0	$200
Inpatient Coinsurance or copay	0%	20%	10%	30%	20%	40%
Surgery Coinsurance or copay	0%	20%	10%	30%	20%	40%
General Coinsurance or copay	0%	20%	10%	30%	20%	40%
Hospitalization - Mental Health						
Maximum Number of Days	365	365	45	45	30	30
Deductible	None	None	None	None	None	None
Inpatient Coinsurance or copay	0%	20%	10%	30%	20%	40%
Inpatient Sub Abuse Coinsurance or copay	0%	20%	10%	30%	20%	40%
Inpatient Sub Abuse Day Limits	same	same	same	same	same	same

Table 38: The coverage offered by the Hay Group private sector Managed FFS Comparison Group Plans

	PRIVATE SECTOR MANAGED FFS PLANS					
Coverage Element	**HIGH**		**MEDIUM**		**LOW**	
	In	Out	In	Out	In	Out
Hospitalization - Mental Health (Cont.)						
Annual or Lifetime Limits	None	None	None	None	None	None
Outpatient Care						
Physician Coinsurance or copay	0%	20%	10%	30%	20%	40%
Imaging & Lab Consurance or copay	0%	20%	10%	30%	20%	40%
Outpatient Mental Health						
Maximum Number of Days	104	104	60	30	30	None
Outpatient Coinsurance or copay	0%	20%	10%	30%	20%	N.A.
Outpatient Sub. Abuse Coinsurance or copay	same	same	same	same	same	same
Sub. Abuse Day Limits	same	same	same	same	same	same
Prescription Drugs						
Coinsurance	n/a	n/a	n/a	n/a	n/a	75%
Deductible	$0	$0	$0	$0	$25	$25
Copay - Generic	$5	$10	$5	$10	$10	n/a
Copay - Brand	$7	$15	$10	$20	$20	n/a

The 100 largest FEHBP HMO plans

In the main body of the paper we compared TRICARE Prime's coverage with the coverage provided by the 100 largest HMO plans offered under FEHBP. In table 39 we present a list of these plans. These 100 plans cover almost 90 pecent of all of the FEHBP HMO enrollees. Also the plans are very representative geographically. They cover federal employees in 30 different states along with Puerto Rice and the District of Columbia.

Table 39: The 100 largest HMO plans offered under FEHBP

Rank	Name	State	Total Covered	Self Premium	Family Premium
1	Kaiser Foundation Health Plan-Northern California	CA	148,159	$465.40	$1,110.72
2	Kaiser Foundation Health Plan of the Mid-Atlantic	DC	137,744	$513.76	$1,376.70
3	Kaiser Foundation Health Plan-Southern California	CA	113,576	$530.66	$1,245.66
4	GHI Health Plan	NY	72,230	$563.68	$1,938.30
5	NYLCare HealthPlans of the Mid-Atlantic - High	MD	65,218	$626.60	$1,803.88
6	Health Net	CA	52,301	$489.84	$1,150.76
7	Hawaii Medical Service Association Plan	HI	50,109	$531.96	$1,248.52
8	PaciCare of California	CA	42,451	$491.92	$1,396.20
9	Triple - S	PR	40,607	$527.28	$1,132.56
10	M.D. IPA	MD	38,167	$514.02	$1,236.30
11	PacifiCare of Colorado (FHP of Colorado) - High	CO	35,558	$465.92	$1,205.88
12	Aetna U.S. Healthcare	NY	30,365	$559.78	$1,969.76
13	Keystone Health Plan East	PA	28,210	$538.98	$2,010.58
14	Blue Cross CaliforniaCare	CA	25,977	$432.12	$1,102.40
15	Health Insurance Plan of Greater New York (HIP)	NY	25,814	$488.28	$1,192.10
16	Group Health Cooperative of Puget Sound - High	WA	25,805	$564.72	$1,635.14
17	Aetna U.S. Healthcare - High	PA	25,746	$768.30	$2,900.82
18	Kaiser Foundation Health Plan of the Northwest - High	OR	24,903	$697.84	$1,822.08
19	Kaiser Foundation Health Plan of Colorado	CO	23,680	$471.12	$1,203.02

Table 39: The 100 largest HMO plans offered under FEHBP

Rank	Name	State	Total Covered	Self Premium	Family Premium
20	Group Health Cooperative of Puget Sound - Low	WA	22,555	$430.30	$996.32
21	Humana Health Plan of Texas	TX	21,994	$467.74	$1,201.98
22	PCA Health Plans of Texas	TX	21,804	$438.36	$1,201.46
23	Aetna U.S. Healthcare	VA	20,316	$768.30	$2,369.90
24	Lovelace Health Plan	NM	19,683	$400.14	$1,040.78
25	George Washington University Health Plan - High	DC	18,522	$1,001.78	$2,249.78
26	"Humana Health Plan, Inc. - Chicago"	IL	18,348	$528.84	$1,556.10
27	United HealthCare of Illinois	IL	18,242	$468.78	$1,246.44
28	HealthPartners Classic - High	MN	17,403	$492.70	$1,534.78
29	Kaiser Foundation Health Plan of Georgia	GA	17,081	$508.56	$1,464.58
30	Intergroup of Arizona	AZ	15,743	$441.22	$1,420.38
31	Aetna U.S. Healthcare - Low	NJ	15,734	$527.54	$1,824.68
32	Prudential HealthCare HMO - Mid-Atlantic	MD	15,609	$670.80	$1,551.94
33	Optima Health Plan	VA	15,347	$729.56	$2,374.32
34	Free State Health Plan	MD	15,159	$660.14	$1,526.98
35	NYLCare Health Plans of the Southwest	TX	15,038	$520.78	$1,285.96
36	Health Alliance Plan	MI	14,838	$514.80	$1,758.38
37	PacifiCare of Texas	TX	14,788	$445.64	$1,183.26
38	"Kaiser Foundation Health Plan, Hawaii Region - High"	HI	14,490	$1,055.86	$2,258.10
39	NYLCare HealthPlans of the Mid-Atlantic - Low	MD	13,584	$398.84	$937.30
40	Aetna U.S. Healthcare - Low	PA	12,779	$515.84	$1,730.04
41	HealthAmerica Pennsylvania	PA	12,657	$500.50	$2,215.98

Table 39: The 100 largest HMO plans offered under FEHBP

Rank	Name	State	Total Covered	Self Premium	Family Premium
42	Aetna U.S. Healthcare	GA	12,225	$495.82	$1,414.66
43	Health Maintenance Plan (HMP)	OH	12,184	$537.42	$1,244.62
44	United HealthCare of Ohio	OH	11,997	$639.86	$1,589.64
45	Aetna U.S. Healthcare	OH	11,890	$573.56	$1,843.14
46	HIP Health Plan of New Jersey	NJ	11,807	$557.18	$1,852.50
47	PacifiCare of Utah (FHP of Utah)	UT	11,621	$413.40	$1,099.02
48	PennState Geisinger Health Plan	PA	11,564	$429.78	$1,629.16
49	Harvard Community Health Plan	MA	11,338	$944.32	$3,348.02
50	PacifiCare of Arizona (FHP)	AZ	11,326	$411.58	$1,154.40
51	Kaiser Foundation Health Plan of Texas	TX	11,185	$570.96	$1,942.72
52	Independent Health Association	NY	11,005	$368.94	$1,035.58
53	United HealthCare Select	MO	10,791	$581.36	$1,584.44
54	George Washington University Health Plan - Low	DC	10,690	$443.56	$967.20
55	CareFirst	MD	10,360	$775.58	$2,000.96
56	Prudential HealthCare HMO Houston	TX	9,991	$428.74	$1,288.82
57	Kaiser Foundation Health Plan of Kansas City	KS	9,882	$406.38	$1,048.58
58	PacifiCare of Oklahoma	OK	9,477	$442.26	$1,208.22
59	Group Health Northwest	WA	9,305	$759.72	$2,607.80
60	Scott and White Health Plan	TX	9,280	$882.70	$3,040.18
61	HealthAmerica Pennsylvania	PA	9,210	$533.26	$1,811.16
62	Harvard Pilgrim Health Care of New England	RI	9,177	$445.12	$1,068.34
63	Aetna U.S. Healthcare - High	NJ	9,034	$1,489.80	$4,267.12
64	Kaiser Foundation Health Plan of Ohio	OH	8,939	$526.76	$1,211.60

Table 39: The 100 largest HMO plans offered under FEHBP

Rank	Name	State	Total Covered	Self Premium	Family Premium
65	Cigna HealthCare Mid-Atlantic	MD	8,823	$375.44	$1,065.48
66	Cigna HealthCare of Virginia	VA	8,783	$504.14	$1,123.98
67	BlueChoice Of Missouri	MO	8,735	$653.64	$1,429.74
68	Aetna U.S. Healthcare	CA	8,665	$520.78	$1,218.88
69	Kaiser Foundation Health Plan of North Carolina	NC	8,586	$386.88	$1,160.38
70	Prudential HealthCare HMO Jacksonville	FL	8,388	$399.36	$1,098.50
71	Prudential HealthCare HMO Oklahoma City	OK	8,384	$435.76	$1,159.60
72	Blue Shield of California Access+ HMO	CA	8,281	$478.92	$1,188.46
73	Cigna HealthCare of Arizona-Phoenix	AZ	7,749	$486.72	$1,217.06
74	Kitsap Physicians Service - Low	WA	7,737	$643.76	$1,454.96
75	Fallon Community Health Plan	MA	7,724	$495.04	$1,423.50
76	SelectCare - HMO	MI	7,547	$414.18	$1,098.24
77	Health New England	MA	7,468	$743.60	$1,734.20
78	Humana Medical Plan	FL	7,288	$491.40	$1,228.50
79	Aetna U.S. Healthcare - High	PA	7,232	$547.30	$2,135.12
80	PacifiCare of Colorado (FHP of Colorado) - Low	CO	7,024	$413.40	$1,071.20
81	The M*Plan	IN	7,005	$494.52	$1,202.50
82	Humana Health Plan of Corpus Christi	TX	6,721	$528.58	$1,375.66
83	"Humana Health Plan, Inc."	KY	6,707	$563.94	$2,147.34
84	Humana Kansas City - High	MO	6,688	$547.04	$1,554.80
85	Dean Health Plan	WI	6,684	$514.28	$1,857.18
86	Medica Primary	MN	6,677	$546.52	$1,699.88
87	QualMed Washington Health Plan	WA	6,675	$546.78	$1,607.58

Table 39: The 100 largest HMO plans offered under FEHBP

Rank	Name	State	Total Covered	Self Premium	Family Premium
88	HealthPartners Health Plans	AZ	6,204	$393.12	$1,100.84
89	Capital District Physicians' Health Plan	NY	6,198	$463.32	$1,235.78
90	Community Blue - New York	NY	6,196	$370.50	$1,035.84
91	Humana Medical Plan	FL	6,156	$484.90	$1,212.38
92	Compcare Health Services	WI	6,106	$560.04	$2,103.92
93	Columbia Medical Plan	MD	6,068	$1,115.66	$3,093.74
94	PacifiCare of Ohio (FHP of Ohio)	OH	5,998	$546.26	$1,460.94
95	Community Health Plan	NY	5,951	$470.86	$1,192.62
96	Rush Prudential HMO	IL	5,920	$465.92	$1,121.12
97	Foundation Health	CA	5,855	$491.92	$1,156.48
98	Health Partners of Alabama	AL	5,668	$509.60	$1,518.66
99	CIGNA HealthCare of California	CA	5,607	$537.68	$1,154.92
100	PacifiCare of Oregon	OR	5,577	$531.18	$1,180.14

Health Maintenance Organization Plans in the private sector

As part of our analysis in the main body of the paper, we compared the out of pocket expenditures individuals would be left with under TRICARE Prime with what they would be left with under representative private sector HMO plans. In table 40 we describe the coverage of the 2 representative HMO plans the Hay Group used to generate the out of pocket expenses. One plan offers a very high level of coverage and the other plan offers a relatively low level of coverage. These plans are also representative of the HMO plans offered under FEHBP.

Table 40: The coverage offered by the Hay Group private sector HMO Comparison Group Plans

Coverage Element	High	Low
Deductible		
Single	$0	$200
Family	$0	$400
Maximum Out-of-Pocket		
Single	$0	$1,000
Family	$0	$2,000
Hospitalization		
Deductible	$0	$50
Inpatient Coinsurance or copay	0%	$10 copay
Surgery Coinsurance or copay	0%	10%
General Coinsurance or copay	0%	$10 copay
Hospitalization - Mental Health		
Maximum Number of Days	365	30
Deductible	$0	$0
Inpatient Coinsurance or copay	0%	$10 copay
Inpatient Sub Abuse Coinsurance or copay	0%	$10 copay
Inpatient Sub Abuse Day Limits	same	same
Annual or Lifetime Limits	None	None
Outpatient Treatment		
Physician Coinsurance or copay	0%	$10 copay
Imaging & Lab Consurance or copay	0%	$10 copay
Outpatient Mental Health		
Maximum Number of Days	365	120
Outpatient Mental Health (Cont.)		
Outpatient Coinsurance or copay	$10 copay	$25 copay

Table 40: The coverage offered by the Hay Group private sector HMO Comparison Group Plans

Coverage Element	High	Low
Outpatient Sub Abuse Coinsurance or copay	same	same
Sub Abuse Day Limits	same	same
Prescription Drugs		
Coinsurance	N.A.	15%
Deductible	$0	$50
Copay - Generic	$5	N.A.
Copay - Brand	$10	N.A.

Appendix B: Sample of private sector firms

In this appendix, we present the 50 private firms that were used as our comparison group when calculating the value of benefits, including the health care benefit. These 50 firms were drawn from the Hay Group's database of private firms and public sector organizations.

Table 41. 1999 Hay Benefits Report participants (CNA Comparator Group)

Employer name	Revenue	U.S. employees	Industry
ALCOA	$10,865	9,500	Primary metals
Allstate	$22,793	45,798	Insurance
American Express-Travel Related Services	$9,905	50,334	Business services
Ameritech Cellular Services	$10,663	71,700	Communications and telephone
Amoco Corporation	$36,200	41,723	Petroleum refining
Armstrong World Industries	$2,513	22,428	Furniture
Ashland Oil-Core Oil	$7,200	33,000	Petroleum refining
AT&T	$51,319	112,000	Communications and telephone
B.F. Goodrich-Corporate	$2,471	14,415	Chemicals and allied products
Bayer Corporation	$2,568	10,200	Chemicals and allied products
Blockbuster Entertainment Group	$3,000	60,000	Miscellaneous retail
BP America	$1,324	43,000	Petroleum refining
Brunswick Corporation	$2,354	19,169	Transportation equipment
Caterpillar	$16,072	54,031	Machinery
Chevron Chemical Company	$36,795	4,909	Chemicals and allied products
Computer Sciences Corp. Financial Services Group	$6,600	45,000	Business services
Consolidated Edison Company of New York City	$6,999	14,969	Electric, gas, and sanitary services
CVS Corporation	$12,700	115,000	Miscellaneous retail
Dayton Hudson Corporation	$25,371	218,000	General merchandise stores
Deere & Company	$13,800	12,990	Machinery
Eaton	$3,659	36,721	Transportation equipment
Federal Express	$10,300	123,070	Transportation services
Federated Department Stores, Inc.	$7,079	120,000	General merchandise stores
FMC Chemical	$4,259	22,048	Chemicals and allied products
Frito-Lay	$6,200	36,000	Food and kindred products
GTE	$21,823	175,000	Communications and telephone

Table 41. 1999 Hay Benefits Report participants (CNA Comparator Group) (continued)

H.J. Heinz Company	$6,682	35,582	Food and kindred products
IBM	$76,000	137,015	Office, computing, and accounting machines
International Paper Company	$23,000	88,508	Paper and allied products
J. C. Penney Company, Inc.	$19,955	186,280	General merchandise stores
Kimberly-Clark Corporation	$6,830	22,229	Paper and allied products
Kmart Corporation	$38,124	275,000	General merchandise stores
Lockheed Martin Energy Systems	$1,532	10,072	Communications transmission equipment
Marriott International	$8,729	140,708	Hotels, rooming houses, and other lodging
MCI Telecommunications Corporation	$18,494	23,000	Communications and telephone
Merck & Company, Inc.	$26,898	23,410	Chemicals and allied products
NCR Corporation	$6,505	14,081	Office, computing, and accounting machines
Norfolk Southern Corporation	$4,101	23,180	Railroad transportation
Payless Cashways	$1,900	10,866	Lumber and other bldg material dealers
Ryder System, Inc.	$5,200	42,918	Trucking and warehousing
Sara Lee Corporation	$18,600	135,000	Food and kindred products
Southland Corporation, The	$6,900	30,323	Food stores
Sprint Corporation	$14,874	50,654	Communications and telephone
State Farm Insurance Companies	$35,300	74,344	Insurance
The Bank of New York Company, Inc.	$1,192	15,500	Banking
Thiokol Corporation	$1,202	5,630	Aircraft, guided missiles, etc.
Timken	$2,230	10,300	Primary metals
United Healthcare Corporation	$581	26,572	Insurance
Wal-Mart Stores, Inc.	$8,500	747,100	General merchandise stores
Whirlpool Corporation	$8,696	61,370	Electrical and electronic machinery, equipment

Appendix C: Computation of benefit values—assumptions and approach

This appendix explains the assumptions and approach used to determine values for certain benefit programs having features unlike standard private sector practices.

Life insurance benefits

We developed an adjustment factor for the life insurance BVCs to recognize the younger age distribution and lower mortality experience of the military compared with a private sector workforce. The adjustment factor is .305. That is, each the life insurance benefits for the military, federal, and private sector were multiplied by this factor.

Dependency and indemnity compensation and the survivor benefit plan are the primary sources of income for survivors of deceased military. DIC is payable to surviving spouses of deceased active duty personnel, and to survivors of separated active duty personnel with service-connected disabilities. SBP is payable to surviving spouses of deceased active duty personnel with 20 or more years of service and deceased retirees who elected SBP coverage upon retirement.

DIC payments are the same amount for all recipients, regardless of the member's grade. SBP payments are 55 percent of the deceased active duty decedent's basic pay or 55 percent of a "base" amount of retired pay selected by the retiring member. SBP payments are reduced to 35 percent of the base amount when the recipient reaches age 62; however, the retiree may elect to purchase additional coverage that maintains the benefit at 55 percent for life.

The DIC and SBP are integrated for the relatively small proportion who qualify for benefits from both programs (for instance, survivors of active duty decedents with 20 or more years of service, or survivors of retired personnel with service-connected disabilities). In these

cases, DIC is the primary benefit source. If the SBP benefit would be larger than DIC, then SBP pays the difference above the DIC benefit. In valuing these programs, we first determined the value of the DIC, and then added an adjustment factor (5 percent) to account for those cases of dual receipt.

Health care benefits

In this study, active duty members were assumed to receive all health care through the MTF. Active duty dependents and retirees (under age 65) and their dependents are assumed to receive health care through the MTF, through DOD purchased care, or through private insurance. When possible we determined the percentages based on data drawn from the 1997 annual survey of DOD beneficiaries. Because we didn't know how beneficiaries split their use of Standard and Extra, we simply assumed they used them equally. Retirees age 65 and above may receive care in the MTF on a space-available basis but may not participate in the insurance programs.

The value of the health care benefit for each of the four coverage sources was determined and an average value was computed using the weights in table 42. The value of the dependent dental plan was coded into the medical plan designs for the three TRICARE programs for both active duty dependents and retirees.

Table 42. Percentages based on source of care

	AD	ADFM	Retirees < 65	Retirees 65+
MTF	100	25.0	21.9	21.6
Prime[a]	0	61.0	24.7	2.7[b]
Extra	0	3.1	4.0	0
Standard	0	5.7	10.8	0
No health care[c]	0	5.1	38.5	75.7

a. This category refers to Prime enrollees who receive care outside of the MTF.
b. There is a small group of 65+ beneficiaries who are enrolled in Prime (the August 1999 numbers showed about 26,000).
c. A percentage of each group either had no health care costs or received it from private sources.

We need to make a few other comments on the numbers reported in the table. Active duty personnel are in Prime by definition and Prime is used here explicitly for ADFM and retirees under 65 and their family members. Of the 95 percent of the ADFM who rely on the MHS, we relied on results from the 1997 survey and more recent values on Prime enrollment (from Health Affairs, for August 1999) to determine the percentages shown in table 42. For example, the table implies that ADFMs receive about 11 percent of their care at the MTF on a space-available basis. Another 75 percent receive care through Prime, either at the MTF or through civilian providers or facilities. The last line in the table is important because it points out the fact that DOD does not have to pay for the care of all beneficiaries. Some had no health care costs, but most of this group relied on private sources to pay for their care (i.e., they paid for it themselves or through employer-provided or self purchased insurance).

To value the FEHBP benefit, we computed the benefit value for each of the five largest plans and developed a weighted average benefit value based on enrollment. The five largest plans and their weights are shown in table 43.

Table 43. The five largest FEHBP plans and their weights used to compute benefit values

Plan	Weight
Blue Cross/Blue Shield standard option	.67
Mailhandlers plan	.16
Government Employees Health Association (GEHA)	.09
National Association of Letter Carriers (NALC)	.04
American Postal Workers Union (APWU)	.04
Total	1.00

The private sector health care benefit value is the average of the values of the 50 separate comparator programs. In cases where an employer has more than one health care plan, we value the plan with the largest enrollment.

A demographic adjustment factor was also developed for health care benefits to reflect the lower age of the military workforce. The factor was .692 which was applied to each health care BVC produced by the Hay model.

Retirement

As we showed in table 18 in the text, military personnel are covered under one of three retirement programs, depending on their accession year. The Final Basic Pay system provides a higher annuity payment than the High-3 system, which, in turn, provides a higher annuity payment than Redux. The National Defense Authorization Act for FY2000 allows members covered by Redux to elect to convert to the High-3 system or to continue coverage under Redux but receive a $30,000 lump sum payment.

Each of the military systems is more generous than private sector pension plans because they permit retirement after 20 years of service with an immediate annuity and the annuity has automatic indexing for inflation—100 percent of the CPI for the Final Basic Pay and High-3 systems and CPI-1 for Redux. The value of the retirement program for the example military members was determined on the basis of their years of service. For members covered by Redux, we assumed they would convert to High-3 in order to maximize their lifestream retirement income.

In comparing military and Federal retirement programs, we selected the Federal programs (shown in the text in table 19) in which the military member would participate had they instead entered Federal civil service on their armed forces accession date.

The private sector pension value was the average of the value of the pension plans of those comparators providing pension plans.

The Thrift Savings Plan (TSP) is the capital accumulation plan for Federal employees. We valued this plan as if each employee participated and made the contribution necessary to receive the maximum agency match. For the private sector, we determined the average value of the comparator capital accumulation plans assuming receipt

of the maximum employer matching contribution. The military has no capital accumulation plan.

Again, we developed adjustments for the pension benefit values to take account of the demographic differences between the military and civilian populations. A separate adjustment factor was developed for each of the three military systems. For each system, the factor was the ratio of the normal cost published by the DoD Office of the Actuary in the 1997 Valuation of the Military Retirement system divided by the normal cost computed in the Hay common cost model (which reflects private sector workforce demographics). These three factors were averaged to produce a single factor that was applied to the Federal and private sector pension benefit values.

Other benefits

This category includes miscellaneous benefits that do not logically fit into another category. The following explain our approach to valuing other benefits peculiar to the military.

Morale, Welfare and Recreation (MWR) Activities

MWR facilities provide an important benefit for the military. These facilities serve a dual purpose. By fostering good physical fitness, they contribute directly to mission accomplishment and readiness. By providing an opportunity for relaxation, they improve the quality of life for users and their families. In past years, MWR facilities received significant amounts of appropriated funds to sustain operations. More recently, legislation has forced these facilities to become more self-sustaining, often resulting in reduced hours and user fees.

Based on [5], we valued MWR benefits as the average per capita expenditure for enlisted members in Fiscal Year 1998. The value is $531 and was applied to each case.

Family Support Centers (FSCs)

FSCs provide an important service by assisting commanders and service personnel and their families in managing the demands of military life. FSCs offer three types of services: information and referral, counseling and assistance, and training and education.

We valued FSCs using the same approach as for MWR, that is, we use the average per capita expenditure for enlisted members in FY 1998. The value as estimated in [5] was $114 and was applied to each case.

Education benefits

Three values were estimated for education benefits: (1) undergraduate education benefits for officers, (2) graduate education benefits for officers, and (3) tuition assistance benefits for enlisted members.

In developing the education values, we assigned a portion of the value of the education as satisfying the needs of the service and a portion that represents a true benefit to the member. CNA analysts suggested a 25/75 relationship between service needs and individual benefit.

Undergraduate officer education values were determined for each of the primary commissioning sources: (1) service academies (15 percent of annual accessions), (2) ROTC scholarship and non-scholarship programs (27 percent), (3) Officer Candidate School programs (15 percent), (4) direct appointment programs (26 percent), and (5) other sources (7 percent). We estimated the cost per accession from each source and the average career length and then determined the accession cost per year of service for the undergraduate education.[32] The resulting value was about $1,000.

The value for graduate education was developed in a similar manner. We estimated the percentage of an entering cohort that would be sponsored through a graduate program, the expected cost for the program, and the expected career length following graduation. The resulting benefit value for graduate education was $172, so the total education benefit value assigned to officers in the examples was $1,172.

The tuition assistance value was determined on the basis of CNA-provided data on the annual DOD expenditure for tuition assistance and the service participation rates. The resulting value was $116.

32. Some of the numbers we used were based on information in [6].

Personal legal services

Military members have access to limited legal services through the installation legal office. Available services include general legal counseling, general state and Federal tax advice, preparation of simple wills and trusts, and assistance in preparation of a home sale or lease contract. We valued these benefits assuming varying utilization depending on grade. The following table summarizes the utilization assumptions and benefit values. We also assumed an average billing rate of $150 per hour, the cost the member would pay to acquire these services through a private attorney.

Table 44. Annual benefit for military legal services

Grade	E-1	E-4	E-6	E-8	O-3	O-4	O-6	O-10
Years of service	< 4 mos.	4	10	21	6	12	22	32
Percent using	.1	5	10	50	25	50	75	90
Hours/year	.5	1	2	4	2	4	6	8
Value	<$1	$8	$30	$300	$75	$300	$675	$1,080

Commissary and exchanges

The present commissary system is an outgrowth of an 1866 Congressional directive to the Army to provide foodstuffs to soldiers and their families at cost. Although a large percentage of the cost of constructing and operating the commissary system is borne by the patrons through surcharges, there is a benefit associated with the reduced cost of merchandise. The value of this benefit is estimated by determining the percentage of annual income military personnel spend on food in commissary stores, and applying a factor of 20 percent which represents an estimate of the savings accruing from lower commissary prices.

The approach for determining the commissary benefit value followed three steps: First, we determined the percentage of income spent on food to be consumed at home and housekeeping supplies. Data from the Bureau of Labor Statistics *Consumer Expenditure Survey* was used to project the percentage of Regular Military Compensation (RMC) spent on food and supplies at each grade. These data indicate higher

percentages of food spent an lower income levels than at higher income levels. This trend was applied across the military grades from lowest to highest. Second, we adjusted the percentage of income spent on food from the first step to account for food expenditures in commissary stores, compared to commercial convenience or grocery stores. Data collected by the Air Force Commissary Service (prior to establishment of the Defense Commissary Agency) in a 1990 Computer Assisted Telephone Interview (CATI) indicate the percentage of all food purchases made in commissaries ranged from 53 percent for single enlisted to 81 percent for spouses shopping for their families. Third, we applied these percentages to the respective RMC levels to determine the dollar expenditures in commissary stores and the savings were computed as 20 percent of the cost of goods purchased using the following formula:

$$\$ \text{ Savings} = \frac{\$ \text{ Spent at commissary}}{0.8} - \$ \text{ Spent at commissary}$$

The value of the exchange benefit was estimated using a methodology similar to that used for commissaries. Three expenditure categories from the BLS Consumer Expenditure Survey were selected as having goods and services similar to those which could be purchased in an exchange. These categories were (1) apparel and services, (2) gasoline and motor oil, and (3) "other" expenditures which is composed of entertainment, reading, education, personal care, tobacco and smoking supplies, and miscellaneous expenditures. We assumed that one half of the expenditures in the third category were for merchandise/services that could be purchased in an exchange.

For each of the three categories listed above, we assumed that one-third of the expenditures in the category were purchases in an exchange. This assumption was necessary because there are no data available, as there were for the commissary system, on how much patrons spend in exchanges. The result was an array of percentages representing the percentage of RMC spent in an exchange. As with commissaries, the percentage spent declines as income increases.

Finally, these percentages were applied to each RMC level to determine the amount spent. Savings were computed using an average rate of 19 percent using the following formula:

$$\$ \text{ Savings} = \frac{\$ \text{ Spent at exchange}}{0.81} - \$ \text{ Spent at exchange}$$

The final commissary and exchange benefit values are shown in table 45.

Table 45. Annual benefit for commissary and exchange

Grade	E-1	E-4	E-6	E-8	O-3	O-4	O-6	O-10
Years of service	< 4 mos.	4	10	21	6	12	22	32
Commisary	$497	$731	$825	$947	$975	$1,109	$1,409	$1,824
Exchange	$248	$293	$304	$356	$372	$398	$451	$488

Statutory benefits

The employer-provided value of Social Security is the employer's share of the Social Security (FICA) tax. Because only a portion of RMC is subject to Social Security taxes, military members receive lower Social Security benefits than they would if the benefits were based on total salary as is done in the private sector. In acknowledgement of this, members receive an annual $1,200 wage credit so long as their combined basic pay plus the credit do not exceed the Social Security Maximum Wage Base. The Social Security benefit for the military was determined using the following formula, where ABP = annual basic pay:

$$\text{BVC for Social Security} = \min\left((\text{ABP} + \$1{,}200), \$76{,}200\right) \times 0.062 + \text{ABP} \times 0.0145 \ .$$

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